



Rail Enhancement Fund
Project Application Form

Internal Use
2010004c
DRPT Tracking #

Date: January 30, 2009

A. Name of Applicant (Name and Address)

Norfolk Southern Railway Company
Three Commercial Place
Norfolk, VA 23510

Applicant type:

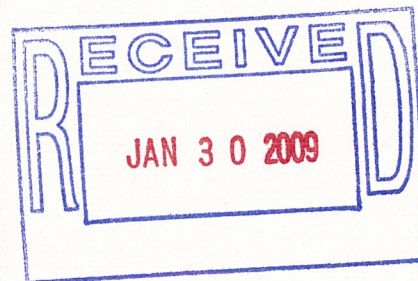
☐ Passenger Railroad

☒ Freight Railroad

☐ Locality

☐ Business

☐ Other _____



B. Contact Information:

Responsible Person/Title: Bill Schafer, Director Strategic Planning

Telephone: 757-629-2894 Fax: 757-533-4884 Email: bill.schafer@nscorp.com

Project Manager/Title: Bill Schafer, Director Strategic Planning

Telephone: 757-629-2894 Fax: 757-533-4884 Email: bill.schafer@nscorp.com

C. Project Title: Crescent Corridor Initiatives (8 Projects) Revised by DRPT

D. Project Location: (City/County, Rail line, Railroad Mile Post, attach map)

See Appendix 1 – Six-Year Improvement Plan Spread Sheet of Proposed Crescent Corridor Projects

See Appendix 3 – Details of each project

E. Owner of Property/Right-of-Way/Facility/Personal Property:

Norfolk Southern Railway Company owns the mainline track rights-of-way, tunnels, bridges, and related appurtenances. NS or an affiliate will acquire any property required.

F. Responsible Party for Continuous Maintenance of Project:

Norfolk Southern Railway Company. This application is for capital costs only. NS will assume all ongoing maintenance and operating cost responsibilities and future capital costs.

G. Project Information:

- 1) Description of Project:
- 2) Project Objectives:

Overview of Norfolk Southern's Crescent Corridor Project

In 2007, Norfolk Southern (NS) announced the Crescent Corridor Project (see overview, Appendix 2), an ambitious endeavor to develop premium rail intermodal service between the Northeast, the Southeast and the Southwest to attract domestic freight from paralleling interstate highways. While intermodal trains operate in this corridor today, they are few and their effect on the level of through truck traffic is minimal.

Following the success of the public-private funding that implemented the Heartland Corridor, NS conceived of the Crescent Corridor as another public-private partnership with significant potential to alleviate truck congestion on major interstate highways. The greatest benefit would be realized on Interstate 81, which runs the length of the Commonwealth of Virginia and which is the Nation's principal truck artery between the Northeast and the South.

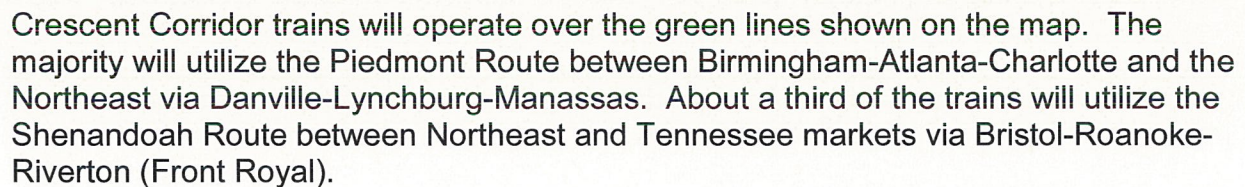
NS estimates that the Crescent Corridor, when fully implemented, will cost between \$2 and 3 billion, and will divert over 1 million trucks per year. Most of these trucks would have traveled on Virginia highways for part of their journeys. NS must find public partners to make full Crescent Corridor service a reality – NS does not have the wherewithal to make the necessary improvements on its own in a meaningful time frame – and is grateful for Virginia's interest and support to date. NS is also seeking public partners at other states and at the federal level.

Overview of NS Routes in Virginia Needed for Crescent Corridor

NS realizes that the Crescent Corridor's enormous freight market has many originating and terminating points. Most of this freight is channeled through Virginia on I-81 and the additional intermodal trains NS proposes to operate as part of the Crescent Corridor will likewise be channeled through Virginia. Some of NS's routes can support additional trains with relatively little additional infrastructure. Other routes need significant upgrading before the potential of the Crescent Corridor can be realized.

Virginia and NS have already partnered to relieve the worst choke points on the Crescent Corridor with implementation of track and signal improvements between Manassas and Front Royal as described in NS's Project Application dated June 13, 2007 (and amended on August 24 and September 24). As a result of these improvements, NS will be able to expand the number of intermodal trains between the

Below is a map showing the NS routes that are part of the Crescent Corridor in Virginia:



Piedmont/Shenandoah Route – WV State Line-Front Royal (H-Line)

NS's line between Front Royal and the West Virginia panhandle (H-Line) is the most critical choke point on the Crescent Corridor network (now that capacity is being added to the B-line between Manassas and Front Royal). This line is single track with signaling and small (i.e. about a mile in length) passing tracks. All Crescent Corridor trains to and from the Northeast (20+ per day when fully implemented) will travel over this segment. The most important near-term upgrading needed: extending the passing track at Berryville (included in last year's Application for FY2009 as well as this FY2010 Application). The construction of a five-mile double track segment in the vicinity of the Virginia Inland Port is nearly complete (part of the June 13, 2007 Application for release of funds provided by the Virginia legislature; construction began on May 27, 2008). Longer term, at least one additional portion of double track will be needed between Riverton and the West Virginia state line.

Piedmont Route – Riverton-Manassas (B-Line)

As a result of funding provided by the Virginia legislature, Norfolk Southern continues to upgrade capacity on the B-line. (Most of the capacity projects are described in the Application dated June 13, 2007.) In calendar year 2008, Norfolk Southern completed rehabilitation and extension of two passing tracks: Whitecut (Woods/Cody) and Allison. In addition, the entire line between Manassas and Riverton received signals and traffic control. Work continues into calendar year 2009: rehabilitation of the passing track between Marsh Run and Ashby (mp H51.9-H53.1) is underway and is now connected to about 3.8 miles of new second main line (mp H53.1-H56.9). NS expects the end result – five miles of double track in the vicinity of the Virginia Inland Port – to be completed by March 31, 2009. On the B-line, property issues have held up construction of the new 11,000-foot passing track between Wellington (mp B5.8) and Gainesville (mp B8.0). NS expects construction to begin in first quarter 2009, with completion before December 31, 2009. Once Wellington-Gainesville is in service, NS expects capacity to be sufficient on the B-line to accommodate Crescent Corridor trains through FY2015.

Piedmont Route – Manassas-Danville (SR Main)

Fortunately, capacity on NS's main line between Manassas and the NC state line south of Danville is not as constrained as on the H-line. The principal improvement needed in the next few years is restoration of 7.2 miles of second main line track to connect two double track segments between Nokesville and Calverton, creating 22.3 miles of contiguous double track on Norfolk Southern's main line between Manassas and Remington, VA. Addition of this capacity will allow trains operating in both directions to pass with little or no delay.

Shenandoah Route – Riverton (Front Royal)-Roanoke (H-Line)

In the 180 miles between Riverton and Roanoke, there are plenty of passing tracks – eighteen – but only one place where an 8000-foot train (proposed Crescent Corridor

train length) can pass another 8000-foot train without blocking grade crossings. The principal improvements needed are passing track extensions. In this application, NS proposes to extend five passing tracks and to construct one new passing track on this line segment over the next five years. NS plans for the Crescent Corridor trains with the most time-critical schedules to operate via the Shenandoah Route and reduced running times – possible with more and better locations for trains to meet – are essential.

Shenandoah Route – Roanoke-Bristol (N- and NB Lines)

The Crescent Corridor shares the line segment between Roanoke and Walton (N-Line) with the Coal and Heartland Corridors. In general, Roanoke-Walton has sufficient capacity for all three Corridors with minor exceptions – the second Montgomery Tunnel bore will need enlarging to accommodate double stack trains (mp N-285) and second main track should be restored between Walton and Bluff (N-297.3-N305.0) at some point in the future to serve as a “queueing lane” to stage Heartland and Coal Corridor trains when conflicts with Crescent Corridor trains at Walton arise.

Walton-Bristol (NB-Line) shares characteristics with the H-Line between Riverton-Roanoke: short passing tracks and slow speeds. Four passing track extension projects and construction of one new passing track are proposed in this Application to be constructed FY2010-FY2015, with additional projects proposed in subsequent years. In addition to allowing Crescent Corridor trains to pass each other, NB-Line improvements will reduce variability of train operations and greatly improve running times.

- 3) Relationship to Other Projects under Development by Applicant or Previously Funded by this Program:

See descriptions of FY2010 Projects in Appendix 3

- 4) Describe the Public Benefits of Project. Identify significant types of benefits and beneficiaries from this project. (See Attachment A).

See descriptions of FY2010 Projects in Appendix 3

- 5) Attachment A – Project Data Information Form – Must be completed by Applicant and submitted with this application.

See Attachment A

H. Type of Project:

- 1) ☒ New Construction ☒ Rehabilitation ☐ Study

- 2) ☒ Rail Infrastructure _____ Rail Facility/Station
 _____ Equipment/Rolling Stock ☒ Signals/Communication Equipment
- 3) Other _____

See descriptions of FY2010 Projects in Appendix 3

I. Application Scope of Work Covers:

☒ Entire Project _____ A Phase of a Multi-Phase Project _____ Completion Phase

See descriptions of FY2010 Projects in Appendix 3

J. Project Budget Summary:

Preliminary Service, Engineering, Or Feasibility Study	\$ _____
Environmental Evaluation	_____
Design Engineering	_____
Right of Way Acquisition	_____
Construction	_____
Construction Management	_____
Lease/Acquisition of Equipment	_____
Public Involvement (if applicable)	_____
Other _____	_____
Subtotal Project Budget	\$ _____
Total Project Budget	\$ _____

See descriptions of FY2010 Projects in Appendix 3

K. Attach detailed budget and schedule information. If the project is for final design, construction or procurement; then plans, specifications and reports to a preliminary engineering level (approximately 30%) should be provided to support the project cost and major features (if applicable). A sample budget and schedule is included in Appendix D.

n/a

L. Rail Enhancement Funds Requested in this Application: ~~\$96,577,000~~
 Maximum 70% of Total Project Budget. Do not include any previous
 Allocations or future phases.

67.9%
 \$ 50,706,000
 (8 projects)

M. Local Match Required by Applicant: ~~\$42,075,000~~
 At least a minimum 30% of Total Project Budget

\$ 24,014,000
 (32.1%)

If Overmatch, Provide Percentage n/a

- 1) Match breakdown by Source (Including any in-kind match)
 - a. Provider of Local Match – Norfolk Southern Railway Company
 - b. Status (confirmed/anticipated) Confirmed
 - c. Attach justification for value of in-kind match.

- 2) Other Funding Sources Beyond Match Requirement
 - a. Provider of Overmatch: n/a
 - b. Status (confirmed/anticipated) _____

N. Project implementation schedule (based in months). List major milestones of the project, including environmental review and public involvement points if applicable.

See descriptions of FY2010 Projects in Appendix 3

O. Statement of how this project promotes or does not preclude dual/multi-access use.

See descriptions of FY2010 Projects in Appendix 3

P. List additional users of rail line, facility, and/or equipment:

See descriptions of FY2010 Projects in Appendix 3

Q. Identify any possible environmental or other issues/concerns within the scope of this project.

See descriptions of FY2010 Projects in Appendix 3

Required Attachments:

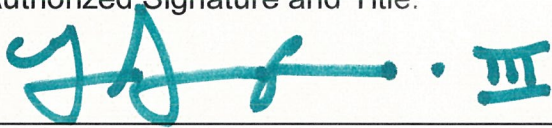
Application is not complete without items 1-5 completed by the Applicant and submitted with the Application.

1. Attachment A – Project Data Information Form (provided)
2. Attachment B – Application Checklist (Provided)
3. Detailed cost, budget and schedule. Include preliminary engineering to 30% report, if applicable (Sample in Appendix D).
4. Certification of Match/% of Match/Documentation of Source of Match including Defined Match Source (To be provided by Applicant).
5. Certification of Additive Investment (To be provided by Applicant).
6. Statement from the Applicant/Owner of the facility that the SWAM participation goals will be achieved by the project.
7. Statement by the owner of the facility that acknowledges the Commonwealth will have a public interest in the facilities, materials, equipment and improvements funded or impacted by this project (To be provided by Applicant/Owner).

Application and Attachment Certification

To the best of my knowledge all information contained in this application and its attachments is true. The information provided to the Virginia Department of Rail and Public Transportation (DRPT) is subject to full disclosure except where protected by Virginia Code. Any additional documentation related to this application will be provided to DRPT upon request.

Authorized Signature and Title:



Date: January 30, 2009

George William Schafer, III
Director – Strategic Planning

One signed original, twelve copies, and an electronic copy in pdf format of the completed application and required documentation must be mailed under applicant cover to:

Director
Virginia Department of Rail and Public Transportation
1313 East Main Street, Suite 300
Richmond, Virginia 23219


Attachment C**CERTIFICATION OF MATCH**

Norfolk Southern Railway Company ("Norfolk Southern") has applied to the Commonwealth of Virginia for Rail Enhancement Funds in FY2010 in the amount of \$96,577,000 in connection with thirteen projects designed to increase capacity and to decrease running time on portions of Norfolk Southern's Crescent Corridor in Virginia. As described in greater detail in Norfolk Southern's application, these projects will:

- Extend passing tracks or double track to enable longer trains to meet or pass other trains of similar length
- Provide capacity needed to assure reliability of the premium intermodal trains necessary to attract truck traffic from Interstate highways

As part of this application, Norfolk Southern hereby certifies that it will provide a local match equivalent to thirty percent (30%) of the estimated total project cost for which Rail Enhancement Funds are made available, or \$42,075,000. This match will be provided entirely by Norfolk Southern or one or more parents, subsidiaries or affiliates of Norfolk Southern.

NORFOLK SOUTHERN RAILWAY COMPANY
By:



John H. Friedmann, Vice President

Date: January 30, 2009

Attachment D

Mr. Chip Badger
Acting Executive Director
Virginia Department of Rail and Public Transportation
1313 East Main Street, Suite 300
P. O. Box 590
Richmond, VA 23218-0590

Subject: Certification of Additive Investment

Dear Mr. Badger:

This letter certifies that the Virginia Funds requested in the accompanying application will add to the state's rail infrastructure and will not be used to replace funds that would have otherwise been spent in the Commonwealth.

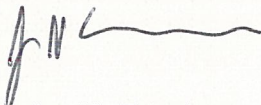
Norfolk Southern Railway Company's application requests funds for FY2010 for infrastructure projects on the Crescent Corridor that will:

- Extend passing tracks or double track to enable longer trains to meet or pass other trains of similar length
- Provide capacity needed to assure reliability of the premium intermodal trains necessary to attract truck traffic from Interstate highways

Although Norfolk Southern foresees traffic growth on the Crescent Corridor, internal funds will not be available to undertake all of the needed improvements for some years to come. Without Virginia Funds, these projects will not be built until there are significant changes in traffic flows, which would delay the benefits made possible by the operation of premium intermodal service.

In sum, Norfolk Southern certifies that the Virginia Funds requested in its application will be used as part of a public-private partnership for improvements that NS would not undertake alone at this time.

Sincerely,



John H. Friedmann
Vice President

January 30, 2009

Attachment F

Statement of SWAM Participation

Name of Applicant and Projects: **Norfolk Southern Railway Company**

Project Name	Location	Milepost Limits
Berryville Passing Track Extension	Berryville, VA	H37.6-H39.8
Nokesville-Calverton Double Track	Nokesville-Calverton, VA	39.1-46.3
Elkton Passing Track Construction	Elkton, VA	H115.5-H118.2
Bentonville Passing Trk Extension	Bentonville, VA	H72.1-H74.2
Stanley Passing Track Extension	Stanley, VA	H93.4-H95.4
Glasgow Passing Trk Construction	Glasgow, VA	H195.5-H197.6
Sampson Passing Track Extension	Sampson, VA	H135.2-H137.3
Wyndale Passing Trk Construction	Wyndale, VA	NB397.2-NB399.5
Walton-Plum Creek Trk Construction	Radford, VA	N297.6-NB299.0
Glade Spring Passing Track Extension	Glade Spring, VA	NB380.4-NB382.7
Gunton Park Passing Trk Extension	Gunton Park, VA	NB322.1-NB324.2
Troutville Passing Track Extension	Troutville, VA	H225.9-H228.1
Wytheville Passing Trk Extension	Wytheville, VA	NB336.2-NB339.6

8 projects

January 30, 2009

To Whom It May Concern:

In connection with Norfolk Southern Railway Company's Rail Enhancement Fund Application for the the projects listed in the table above, please accept this letter as the applicant's statement regarding small, women- and minority-owned business (SWAM) participation goals.

For project work that is not performed by Norfolk Southern's workforce, Norfolk Southern will undertake reasonable and good faith efforts to achieve the SWAM participation goal for the project through race-neutral and gender-neutral means that are lawful and non-discriminatory. We understand the project participation goal to be forty percent (40%) of the total value of contracts between Norfolk Southern and third parties for the performance of the project work. The success of Norfolk Southern's efforts will of course be impacted by the availability of qualified and willing small businesses and women- and minority-owned businesses within the market area of the project.

Thank you for considering Norfolk Southern's application.

Very Truly Yours,



John H. Friedmann, Vice President

Attachment E

Statement of Public Interest

Name of Applicant and Projects:

Norfolk Southern Railway Company

Project Name	Location	Milepost Limits
Berryville Passing Track Extension	Berryville, VA	H37.6-H39.8
Nokesville-Calverton Double Track	Nokesville-Calverton, VA	39.1-46.3
Elkton Passing Track Construction	Elkton, VA	H115.5-H118.2
Bentonville Passing Trk Extension	Bentonville, VA	H72.1-H74.2
Stanley Passing Track Extension	Stanley, VA	H93.4-H95.4
Glasgow Passing Trk Construction	Glasgow, VA	H195.5-H197.6
Sampson Passing Track Extension	Sampson, VA	H135.2-H137.3
Wyndale Passing Trk Construction	Wyndale, VA	NB397.2-NB399.5
Walton-Plum Creek Trk Construction	Radford, VA	N297.6-NB299.0
Glade Spring Passing Track Extension	Glade Spring, VA	NB380.4-NB382.7
Gunton Park Passing Trk Extension	Gunton Park, VA	NB322.1-NB324.2
Troutville Passing Track Extension	Troutville, VA	H225.9-H228.1
Wytheville Passing Trk Extension	Wytheville, VA	NB336.2-NB339.6

8 projects

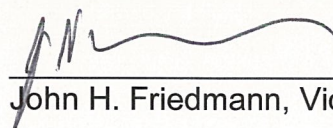
Statement from the owner of the facilities that acknowledges the Commonwealth will have a Public Interest in Private Facilities impacted by these projects.

To Whom It May Concern:

At the appropriate time, Norfolk Southern will enter into an agreement to be negotiated with the Commonwealth of Virginia to protect the Commonwealth's public interest in the projects listed in the table above.

NORFOLK SOUTHERN RAILWAY COMPANY

By:



John H. Friedmann, Vice President

January 30, 2009



Rail Enhancement Fund
Project Application Form

2010001
Internal Use

DRPT Tracking #

Attachment A
Project Data Information Form

Date: January 30, 2009

Name of Applicant and Project:
Norfolk Southern Railway Company – Crescent Corridor Initiatives

General Instructions: Please complete the following forms that apply to the project application.

- For Freight Service projects, complete forms A1, A2 and A5
- For Intercity/Amtrak passenger projects, complete forms A1, A3 and A5
- For Commuter/VRE passenger projects, complete forms A1, A4 and A5
- For projects that involve benefits to both freight and passenger projects, form A1 and forms A2-A4 that apply must be completed. For each completed form A2-A4, a form A5 must be completed for each category for projects resulting in multiple project benefits.

Terms:

Project Cost and Construction period: Form A1 shall be completed with total project cost by year of expenditure with total DRPT cost identified by year of expenditure. This section must be completed for all project applications.

Demand Characteristics: This category of information relates to the additional demand for rail service (including freight and passenger) due to the project. This additional demand must be over and above baseline conditions that currently exist. The specific data to enter here defines initial demand, steady state demand, and the years until steady state demand is achieved.

Steady State Demand: This term refers to the point at which the project benefits/demand have reached a long-term, sustainable level.

Project Impact on Travel Distance: This category of information includes the distance that would be traveled by vehicle or train. All distances should be limited to miles within Virginia. The distance should relate directly to the project-impacted area.

Demand Characteristics for a 15-year Performance Period: This term refers to the project output by performance year, which will be utilized to determine that public benefits and to determine the performance requirements over the 15-year Performance Period of the Grant Agreement.

Attachment A
Form A1 – Project Cost and Construction Period

First Construction Year: Fiscal Year 2010

Last Construction Year: Fiscal Year 2015

*Modified
by DRPT
(8 projects)*

Year	Total Project COST	Total DRPT COST	
Year 1	\$20,903,500 4,180,500	\$14,632,450	2,926,350
Year 2	\$48,807,000 30,202,299	\$34,164,900	20,426,505
Year 3	\$30,202,300 16,082,800	\$20,426,505	10,646,725
Year 4	\$16,082,800 18,177,750	\$10,646,725	12,452,765
Years 5 & 6	\$24,254,400 6,076,650	\$16,706,420	4,253,655
Total	\$140,250,000 74,720,000	\$96,577,000	<u>50,706,000</u>

Use Form A-5 to provide demand characteristics for the 15-Year Performance Period.

Attachment A
Form A2 – Freight Service

Demand Characteristics	CATEGORY	UNITS	VALUE
	Steady state demand – diversion of freight to rail (from trucks)	319,756 Intermodal Units/Year - 2008	
	First year of diversion 2016	53,475 IM Units/Year (average over 15 yrs)	
	Number of years until steady state – beyond forecast period	More than 15	

Project impact on Travel Distance	CATEGORY	UNITS	VALUE
	Rail miles in Virginia (Existing routing before project)	658 Miles	
	Rail miles in Virginia (routing after project completion)	658 Miles	
	Number of years until steady state	Already There (been there for a while) Number of Years	

Conversions	CATEGORY	UNITS	VALUE
	Railcars per Train	100 Railcars/Trains	
	Rail tons per Railcar	50 Tons/Railcar	
	Trucks per Railcar	1.7 Trucks/Railcar	

Other	CATEGORY	UNITS	VALUE
	Change in Daily Delay for Freight Trains	45 hours for 20 trains Railcars/Trains	
	Reduction in Number of Rail At-Grade Crossings	No reduction; just less time occupying some crossings due to higher speeds Tons/Railcar	

Use Form A-5 to provide demand characteristics for the 15-Year Performance Period.

Attachment A
Form A3 – Passenger Service – Intercity/Amtrak

Demand Characteristics	CATEGORY	UNITS	VALUE
	Annual Amtrak passengers (existing)	Passengers/Year	
	Steady State Demand – Additional Amtrak Passengers	Passengers/Year	
	First Year Number of Additional Passengers	Passengers/Year	
	Number of Years Until Steady State	Number of Years	

Project Impact on Travel Distance & Time	CATEGORY	UNITS	VALUE
	Amtrak Passenger Trip Length (existing)	Miles	
	Amtrak Passenger Trip Length (After Project Completion)	Miles	
	Amtrak Travel Time Per Trip (existing)	Minutes	
	Amtrak Travel Time Per Trip (After Project Completion)	Minutes	

Use Form A-5 to provide demand characteristics for the 15-Year Performance Period.

Attachment A
Form A4 – Passenger Service – Commuter/VRE

Demand Characteristics	CATEGORY	UNITS	VALUE
	Annual VRE passengers (existing)	Passengers/Year	
	Steady State Demand – Additional VRE Passengers	Passengers/Year	
	First Year Number of Additional Passengers	Passengers/Year	
	Number of Years Until Steady State	Number of Years	

Project Impact on Travel Distance & Time	CATEGORY	UNITS	VALUE
	VRE Passenger Trip Length (existing)	Miles	
	VRE Passenger Trip Length (After Project Completion)	Miles	
	VRE Travel Time Per Trip (existing)	Minutes	
	VRE Travel Time Per Trip (After Project Completion)	Minutes	

Use Form A-5 to provide demand characteristics for the 15-Year Performance Period.

Knott, Michael (DRPT)

From: Page, Kevin (DRPT)
Sent: Friday, February 13, 2009 9:07 PM
To: Knott, Michael (DRPT); 'Kristopher.Naleszkiewicz@hdrinc.com'; Craig, Jacob (DRPT); Hennessee, Steven (DRPT); Diacont, Robin (DRPT)
Subject: Fw: Amended Attachment A - for Amended Application - 8 Crescent Corridor Projects
Attachments: 090215-FY 2010 REF Application - public benefits page.doc

See below and attached data for the Crescent Corridor bottom 8 projects.

Regards,

Kevin B. Page
Chief of Rail Transportation
VA Dept. of Rail and Public Transportation
1313 East Main Street, Suite 300
Richmond, VA 23219
804.786.3963 v
804.840.3706 c
kevin.page@drpt.virginia.gov

Message sent via Blackberry

From: Schafer, Bill
To: Page, Kevin (DRPT)
Sent: Fri Feb 13 16:47:59 2009
Subject: Amended Attachment A - for Amended Application - 8 Crescent Corridor Projects

Kevin:

Per your request, attached is the amended Attachment A that will accompany NS's amended Application for 8 Crescent Corridor projects when it is forwarded to you in the near future.

Please note that the sum of this Attachment A and the similar attachment in the 2/12/09 Amended Application for 4 Crescent Corridor projects total a smaller sum than the original Application submitted on 1/30/09. This reflects the corrected diversions for the 12 Crescent Corridor projects. The sum in the 1/30/09 Application was incorrect.

If you have any further questions, please don't hesitate to call.

--Bill

DIRECTOR - STRATEGIC PLANNING
NORFOLK SOUTHERN CORPORATION
757-629-2894
Bill.Schafer@NSCORP.com

2/17/2009

February 13, 2009

Complete Amended Application to Follow

NOTE: This table reflects corrected diverted units – does not match values in 1/30/09 Application

Attachment A

Form A5– Demand Characteristics for 15-Year Performance Period

Performance Year	Performance Value *
1	9806
2	12902
3	19612
4	22192
5	25289
6	27869
7	30450
8	33030
9	36127
10	38707
11	41288
12	50061
13	53158
14	56254
15	59351
Total	516096

For Freight Service Projects – car loads or containers per year

For Inter-City/Amtrak Passenger Projects – passengers per year

For Commuter/VRE Passenger Projects – passengers per year

Attachment A represents the truck diversions once the following projects are completed:

Glasgow Passing Trk Construction
Sampson Passing Track Extension
Wyndale Passing Trk Construction
Walton-Plum Creek Trk Construction
Glade Spring Passing Track Extension
Gunton Park Passing Trk Extension
Troutville Passing Track Extension
Wytheville Passing Trk Extension

8 projects

2/13/09

Internal Use

DRPT Tracking #

Attachment B

Measures for Public Benefit/Cost Analysis

- Congestion Relief
- Environmental Improvements
- Reduced Crash and Accident Cost
- Reduction in Cars and Trucks on Highway
- Added Capacity
- Fuel/Pollution Savings
- Carbon Equivalent



Rail Enhancement Fund
Project Application Checklist
Attachment B

Date: January 30, 2009

Name of Applicant and Project:
Norfolk Southern Railway Company - I-81 Crescent Corridor Initiatives

Checklist for Application:

1. Project is consistent with goals of applicable adopted state, regional and/or local plans.

☒ YES ☐ NO

2. Project is an Additive Investment to Virginia.

☒ YES ☐ NO

3. Project provides for, or does not preclude, shared or dual access opportunity.

☒ YES ☐ NO

4. Applicant has provided documentation and certification of at least a minimum 30% match.

☒ YES ☐ NO

5. Applicant has provided an environmental review plan and/or public involvement plan, if applicable, and required budget for this activity as outlined in Appendix D.

☐ YES ☐ NO

6. Application is complete, including signature and specified number of hard copies and an electronic (pdf file) copy; and Applicant has reviewed the Standard Agreement as provided in Appendix C.

☒ YES ☐ NO

List of Appendices

Appendix 1

Master Spread Sheet showing proposed Crescent Corridor projects, FY2010-2015

Appendix 2

Crescent Corridor Overview

Appendix 3

Description of FY2010 Projects (in priority order)

Berryville Passing Track Extension
Nokesville-Calverton Double Track
Elkton Passing Track Construction
Bentonville Passing Trk Extension
Stanley Passing Track Extension
Glasgow Passing Trk Construction
Sampson Passing Track Extension
Wyndale Passing Trk Construction
Walton-Plum Creek Trk Construction
Glade Spring Passing Track Extension
Gunton Park Passing Trk Extension
Troutville Passing Track Extension
Wytheville Passing Trk Extension

8 projects
DRPT note

January 30, 2009

Appendix 1

Crescent Corridor Projects for Virginia FY 2010-2015 - For Rail Enhancement Fund Application

NS Priority	DRPT L&IRI 29 Corridor	Description	Total Project Cost	DRPT FUNDING	NS FUNDING	FEDERAL FUNDING	DRPT Share (%)	NS Share (%)	Federal Share (%)	Phase A	Phase B	DRPT Capital FY2010	DRPT Capital FY2011	DRPT Capital FY2012	DRPT Capital FY2013	DRPT Capital FY2014	DRPT Capital FY2015
1	Berryville mp H37.2-H39.8	Rehabilitate Berryville passing track and construct extension to create 11,000' passing track.	\$ 6,000,000	\$ 4,200,000	\$ 1,800,000		70%	30%		Engineering by 12/1/2009	Project Complete by 12/31/11	\$ 630,000	\$ 3,570,000				
2	Mokeseville to Claxton mp 38.1-46.3	Construct double track, Mokeseville to Claxton to preserve and exceed freight capacity.	\$ 31,640,000	\$ 22,148,000	\$ 9,492,000		70%	30%		Engineering by 12/1/2009	Project Complete by 12/31/11	\$ 11,074,000	\$ 11,074,000				
3	Elkhorn mp H115.5-H118.2	Construct 11,000' passing track near Elkhorn.	\$ 12,580,000	\$ 8,806,000	\$ 3,774,000		70%	30%		Engineering by 12/1/2009	Project Complete by 12/31/11	\$ 1,320,900	\$ 7,485,100				
4	Bentonville mp H72.1-H74.2	Rehabilitate Bentonville passing track and construct extension to create 11,000' passing track.	\$ 9,460,000	\$ 6,622,000	\$ 2,838,000		70%	30%		Engineering by 12/1/2009	Project Complete by 12/31/11	\$ 993,300	\$ 5,628,700				
5	Stanley mp H93.4-H95.4	Rehabilitate Stanley passing track and construct extension to create 11,000' passing track.	\$ 8,880,000	\$ 4,095,000	\$ 1,785,000		70%	30%		Engineering by 12/1/2009	Project Complete by 12/31/11	\$ 614,250	\$ 3,480,750				
6	Glasgow mp H195.5-H197.6	Construct 11,000' passing track near Glasgow.	\$ 10,620,000	\$ 7,434,000	\$ 3,186,000		70%	30%		Engineering by 12/1/2009	Project Complete by 12/31/12	\$ 1,115,100	\$ 6,318,900				
7	Sampson mp H135.2-H137.3	Rehabilitate Sampson passing track and construct extension to create 11,000' passing track.	\$ 9,430,000	\$ 6,601,000	\$ 2,829,000		70%	30%		Engineering by 12/1/2009	Project Complete by 12/31/12	\$ 990,150	\$ 5,048,750				
8	Wyndale mp NB397.2-NB399.5	Construct 11,000' passing track at Wyndale.	\$ 7,820,000	\$ 5,474,000	\$ 2,346,000		70%	30%		Engineering by 12/1/2009	Project Complete by 12/31/12	\$ 821,100	\$ 4,187,610				
9	Watson-Pum Creek mp H237.6-NB299.0	Create 4.5 miles of double track by constructing 7400' of second main line, connecting double track at Watson with Watson passing track.	\$ 15,980,000	\$ 9,568,000	\$ 4,794,000	\$ 1,698,000	60%	30%	10%	Engineering by 8/1/11	Complete by 12/1/13		\$ 4,590,630	\$ 3,687,410	\$ 1,629,960		
10	Gladie Spring mp NB 350.4-NB362.7	Rehabilitate Gladie Spring passing track and construct extension to create 11,000' passing track.	\$ 5,520,000	\$ 3,864,000	\$ 1,656,000		70%	30%		Engineering by 8/1/11	Complete by 12/1/13		\$ 570,000	\$ 2,555,800	\$ 328,440		
11	Garton Park mp NB522.1-NB525.2	Rehabilitate Garton Park passing track and construct extension to create 11,000' passing track.	\$ 6,010,000	\$ 4,207,000	\$ 1,803,000		70%	30%		Engineering by 12/1/12	Project Complete by 12/31/14			\$ 2,051,430	\$ 2,145,570		
12	Trouville mp H225.5-H228.1	Rehabilitate Trouville passing track and construct extension to create 11,000' passing track.	\$ 8,910,000	\$ 6,237,000	\$ 2,673,000		70%	30%		Engineering by 12/1/12	Project Complete by 12/31/14			\$ 935,550	\$ 4,771,305	\$ 530,145	
13	Wytheville mp NB336.2-NB339.8	Rehabilitate Wytheville passing track and construct extension to create 17,000' passing track.	\$ 10,420,000	\$ 7,301,000	\$ 3,129,000		70%	30%		Engineering by 10/1/13	Project Complete by 12/1/15	\$ 14,532,450	\$ 34,164,500	\$ 20,026,500	\$ 10,846,725	\$ 3,577,480	\$ 3,723,510
	TOTAL, Crescent Corridor Projects		\$ 140,250,000	\$ 96,577,000	\$ 42,075,000	\$ 1,588,000											\$ 4,253,655

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Crescent Corridor - An Overview

Appendix 2

**Rail Enhancement Funds Application
January 30, 2009**

Norfolk Southern Corporation
Norfolk, Virginia



I-81 Congestion Gets Worse

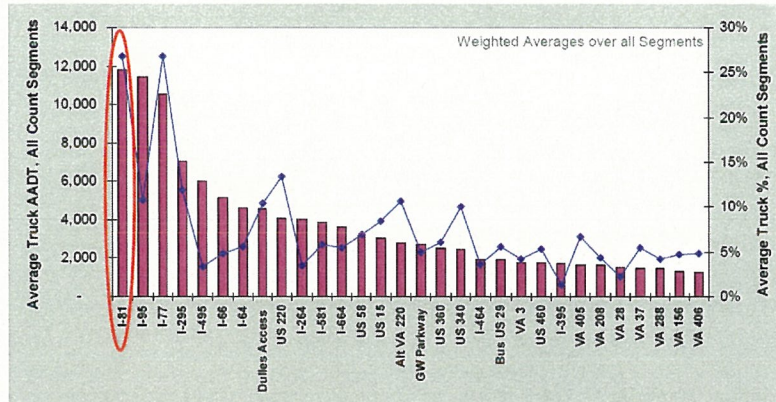
- Truck traffic growing ~50% faster than cars
- \$11+ billion needed to widen I-81
- Air quality and cultural resources at risk
- One-third of through trucks on I-81 and I-77 can be attracted to trains



I-81 and I-77 – Two of the Top Three in Truck Volume

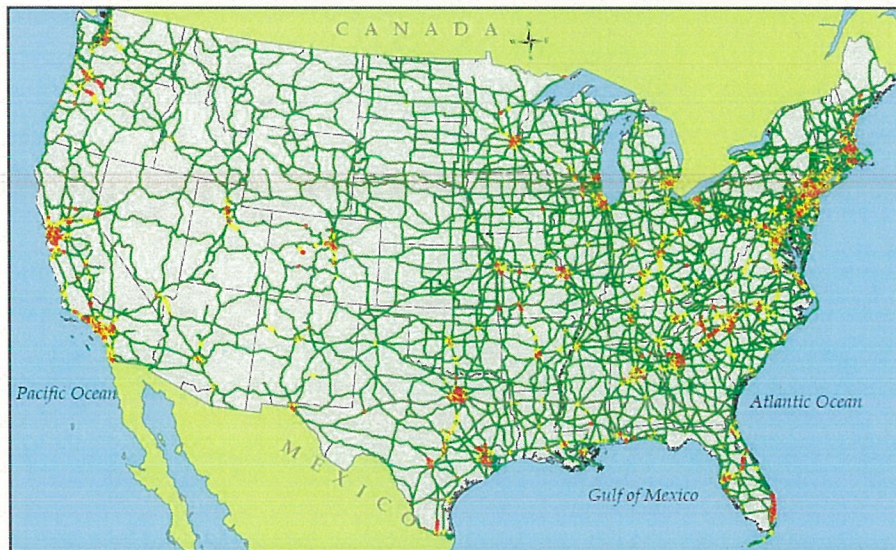
Vehicle Activity on I-81

Compared to other routes, highest for truck volumes



Source: VDOT Traffic Counts (2005)

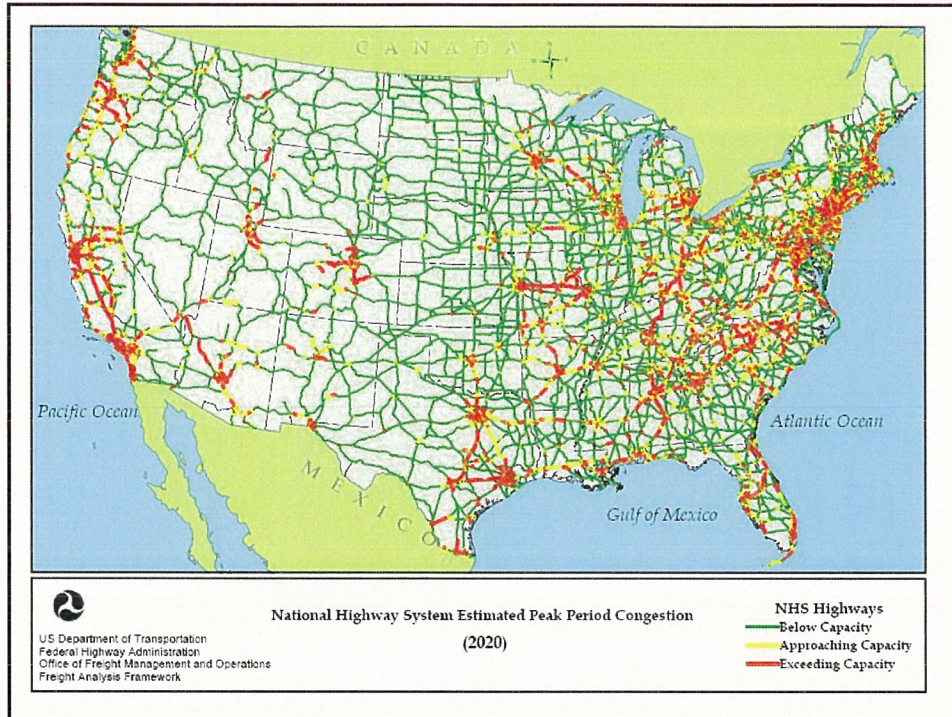
from "Update on Opportunities for Truck and Rail Diversion in Virginia's I-81 Corridor", presented by Cambridge Systematics to Commonwealth Transportation Board, September 17, 2008



U.S. Department of Transportation
Federal Highway Administration
Office of Freight Management and Operations
Freight Analysis Framework

National Highway System Estimated Peak Period Congestion
(1998)

NHS Highways
Below Capacity
Approaching Capacity
Exceeding Capacity



Crescent Corridor Trucks on Trains

- New train service hauling trucks (intermodal trains)
 - Faster schedules
 - Higher degree of reliability
 - 20+ new trains at full ramp-up – all operating through Virginia
- Target: long distance trucks on I-81 and I-77
- 2500 mile rail network parallel to Interstate highways
- Linking Northeast ⇄ Southeast ⇄ Southwest
- Train schedules competitive with single driver transit times





Crescent Corridor **Public Benefits of New Trains**

- Trains use 1/3 less fuel than trucks to haul the same freight
- Each train carries 200+ trucks
- Trains will attract 1 million trucks/year, most from Virginia highways
- Carbon emissions will be reduced by 1 million tons/year
- 100 million gallons of fuel will be saved annually
- Rail lines need less land than highways
- New tracks cost less than new highway lanes
- Fewer accidents involving trucks will occur

Crescent Corridor **Investment Needed**

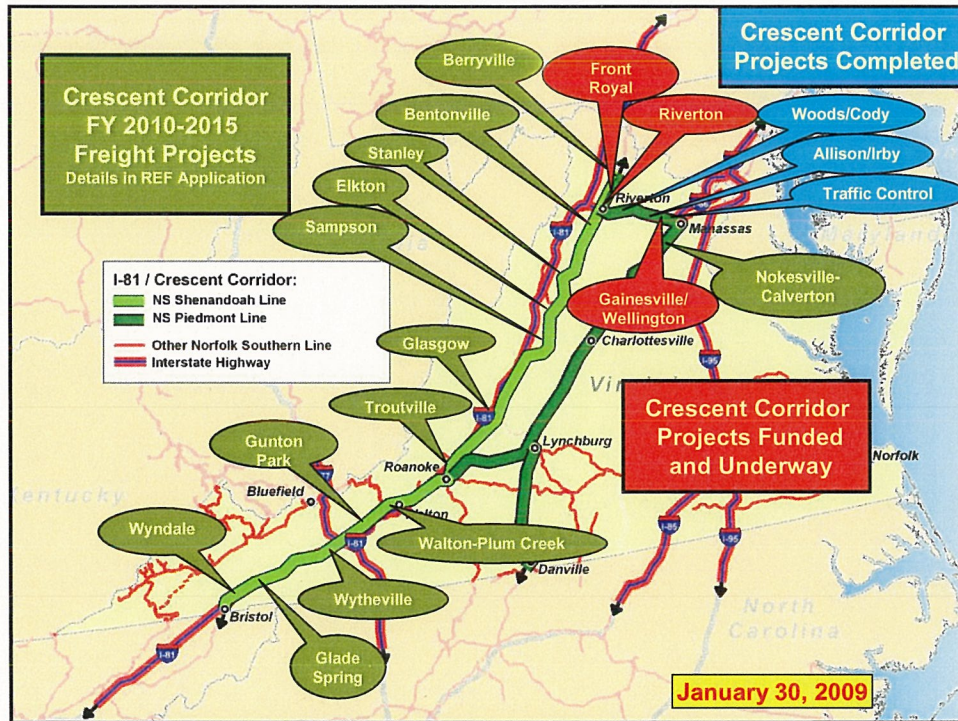
- More than 170 locomotives and 3000 cars
- 300+ miles of passing tracks and double track
- 14 new or expanded terminals
- > \$3 billion in new investment



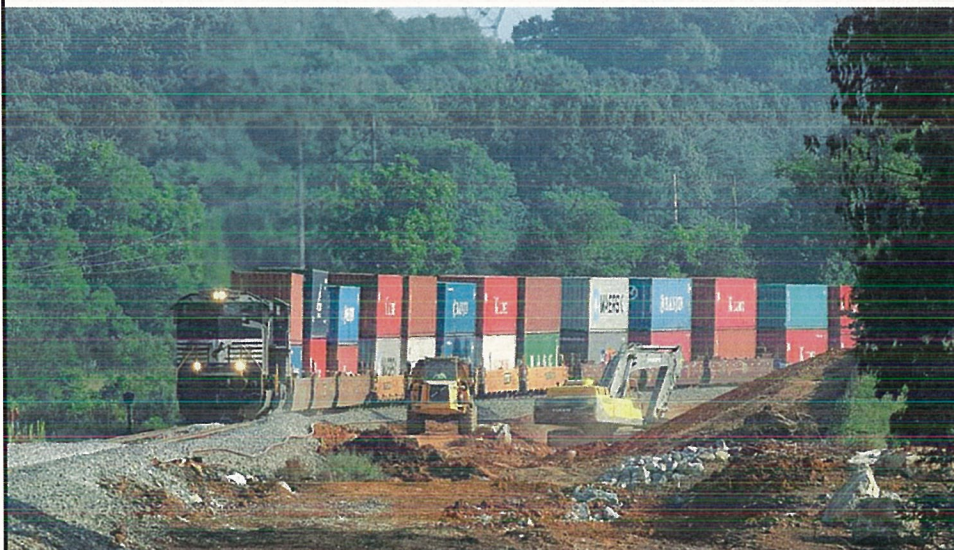
Crescent Corridor **Why Public-Private Partnerships**

- High cost is more than NS can afford on its own
- Many public benefits – good case for public investment
- State partners
 - Virginia, North Carolina already participating
 - Tennessee, Pennsylvania expected to contribute shortly
 - Other states being approached
- Federal partners being asked:
 - To duplicate success of Heartland Corridor
 - To support freight rail in stimulus package





Crescent Corridor Construction



Construction of Double Track at Cedarville, VA – July 2008



Crescent Corridor Construction



Completed Passing Track Near Front Royal, VA (Woods)
December 2008



Priority 6 – Glasgow Passing Track Construction

Project Location: Glasgow (town) and Rockbridge County, VA, on Norfolk Southern's Riverton-Roanoke main line. Project limits: mp H195.5-H197.6

Owner of Property/Right of Way: Norfolk Southern Railway Company

Responsible Party for Continuous Maintenance of Project: Norfolk Southern Railway Company

Project Information:

Description of Project:

Glasgow is located between Riverton and Roanoke, VA on Norfolk Southern's main artery between the Northeast and Tennessee. This line is a secondary main line today but will become a major component of the Crescent Corridor for premium intermodal traffic between the Northeast and two major Tennessee markets. This route is cleared for double stack container traffic and parallels Interstate 81.

The Riverton-Roanoke route is a single track main line, governed by signaled traffic control, with short (less than 8000') passing tracks about every ten miles. Trains pass or overtake each other at passing tracks. This project would construct a new 11,000-foot passing track just south of Glasgow to accommodate longer trains at higher speeds.

Longer passing tracks are badly needed between Shenandoah and Roanoke, about 130 miles. In that distance, there is only one place where long trains can meet or pass: between Vesuvius and Pkin, about three miles of double track on the ruling northbound grade, about 65 miles north of Roanoke and 60 miles south of Shenandoah, and which is encumbered with eight grade crossings throughout its length.

NS proposes to construct a new passing track 11,000 feet long, with #20 turnouts at either end. After completion, any train operating between Roanoke and Riverton will be able to meet or pass any other train at Glasgow, and trains using the passing track will be able to operate over it at 25 mph or more.

Project Objective:

The overall objective of the project is to increase capacity and to speed up train operations on the Riverton-Roanoke main line. This artery today handles merchandise, coal and grain, and will be an important component of the Crescent Corridor for premium intermodal traffic between the Northeast and the major truck markets in Tennessee.

Appendix 3 – Details of FY2010 Projects
Norfolk Southern Rail Enhancement Fund Application
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The specific objective is to establish a point where trains can pass each other in the vicinity of Glasgow.

Relationship to other projects under development by applicant or previously funded by this program:

This project complements FY2008 projects on the H-line at Front Royal. NS is completing the upgrading of the Marsh Run-Ashby passing track to main line standards and the construction of about 3.5 miles of new second main line to create a five mile segment of double track between mp H51.9 – H56.9 in the vicinity of the Virginia Inland Port (see NS's application of 6/13/07 for more detail). By constructing a new passing track near Glasgow in FY2010 (along with the other passing tracks between Roanoke and Riverton described elsewhere in this Application as well as the five miles of double track north of Front Royal), NS will create ten locations between Roanoke and Hagerstown (240 miles) where two contemporary intermodal trains – Crescent Corridor or otherwise – will be able to meet or pass.

Describe the Public Benefit of Project:

Overall public benefits:

- This project, with the other siding extension projects mentioned above, will make possible Crescent Corridor premium intermodal service. At present, very few locations exist where two 8000' trains can pass each other between Hagerstown and Roanoke. The standard length of a Crescent Corridor intermodal train will be 8000'.
- By reducing aggregate delay, and by making freight rail more attractive to potential rail users, this project will help to improve air quality, conserve fuel (because of rail's efficiency advantage) and reduce truck traffic
- By increasing capacity, the project enables the rail mode to absorb more growth

Type of Project:

Project is new construction of rail infrastructure. Includes signal and communication equipment (signal upgrading and relocation, and relocation of fiber optic cable).

Application Scope of Work Covers: Entire project

Appendix 3 – Details of FY2010 Projects
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Project Budget Summary (2008 dollars):

Preliminary Service, Engineering, or Feasibility Study	\$ 244,260
Environmental Evaluation	\$ 265,500
Design Engineering	\$ 509,760
Right-of-way Acquisition	\$
Construction	\$8,049,960
Construction Management	\$ 743,400
Lease/Acquisition of Equipment	\$
Other (Relocate fiber optic cable)	\$ 807,120
	=====
Total Project Budget	\$10,620,000

Rail Enhancement Funds Requested in this Application: \$ 7,434,000 (70%)

This request is for capital costs only. NS will assume all ongoing maintenance and operating cost responsibilities and future capital costs.

No provision has been made for crossing closure or grade separation. If Norfolk Southern can successfully negotiate crossing closures as part of the project, the overall project cost may increase but such increase would be funded by Norfolk Southern, thereby increasing NS match to greater than 30%.

Note that these estimates are in 2008 dollars. Revised estimates may be necessary when project begins.

Local Match Required by Applicant: \$ 3,186,000 (30%)

If Overmatch, Provide Percentage: 0%

1) Match Breakdown by Source (include in-kind)

a. Provider of Local Match Norfolk Southern Railway

b. Status (confirmed/anticipated) Confirmed

2) Other Funding Sources Beyond Match Requirement

a. Provider of Over Match n/a

b. Status (confirmed/anticipated) n/a

Appendix 3 – Details of FY2010 Projects
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M. Project implementation schedule (based in months). List major milestones of the project.

Survey and Develop Plans:	3 Months
Acquire Right of Way:	3 Months
Bidding:	2 Months
Permitting:	2 Months
Relocation of Fiber Optic Line	1 Month
Grading:	4 Months
Track work:	3 Months
Total:	18 Months

Statement on how this Project promotes or does not preclude Dual/Multi-Access Use:

This project is on Norfolk Southern owned right-of-way on which only Norfolk Southern operates; the rail line will remain an exclusive Norfolk Southern route. There is no proposal to change current operations and allow dual access by another railroad on this track. (The competing north-south route of CSX Transportation, Inc. extends between Alexandria, VA and Rocky Mount, NC [via Richmond, VA].)

Also, Project anticipates intermodal freight growth and will enable service enhancements that will attract domestic truck traffic from many trucking companies. In this sense, Project promotes multi-access (i.e., by trucking companies) use.

List additional users of rail line, facility, and/or equipment: trucking companies using intermodal service offered by Norfolk Southern.

Identify any possible Environmental or other issues/concerns within the scope of this project.

Overall environmental effects are expected to be beneficial as rail freight is considerably more fuel efficient and less polluting than truck freight.

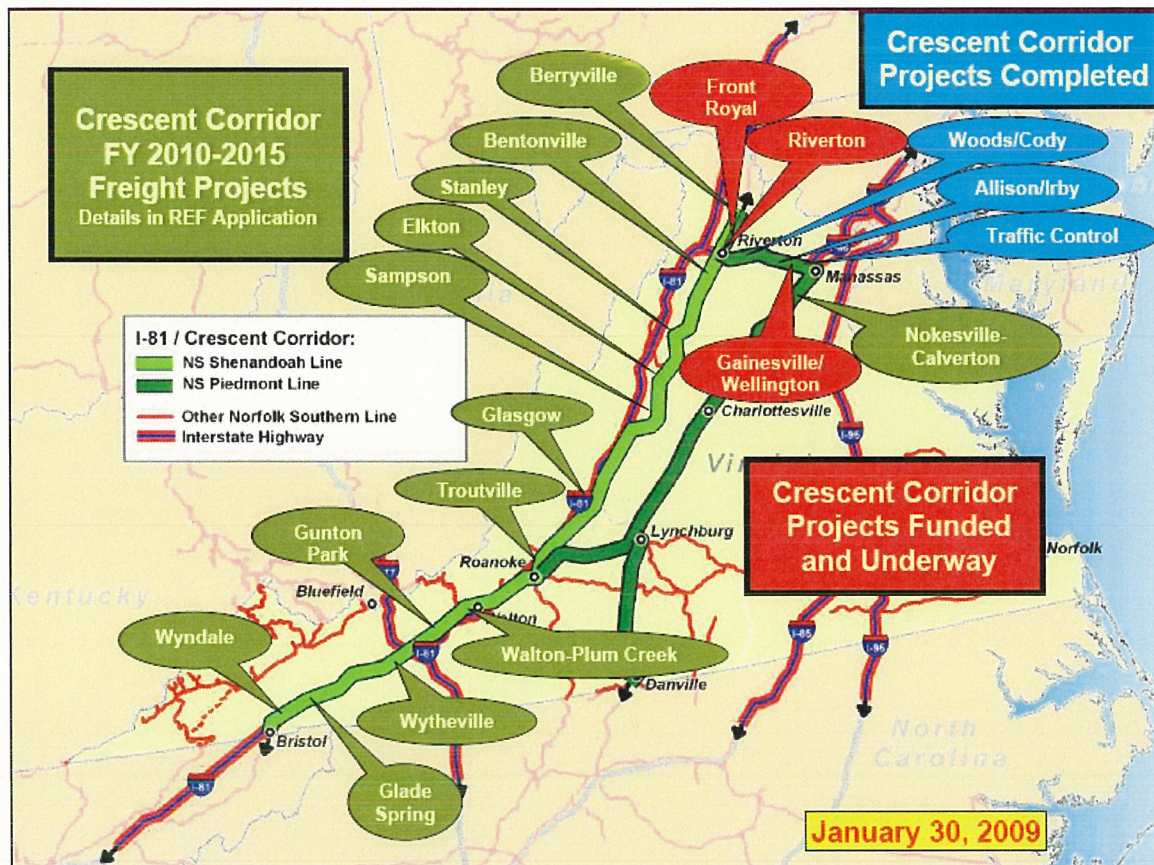
There are no known environmental or similar issues within the scope of this project.

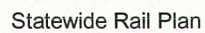
Added Capacity to Rail Corridor (Additional Railcars or Passengers)

When viewed in combination with the other passing track projects between Hagerstown and Roanoke described elsewhere in this Application, as well as the five miles of double track north of Front Royal, the aggregate train delay is reduced by approximately 30 hours per day. Reducing this delay will allow faster turn times for assets such as locomotives, crews and freight cars. When combined with other planned or proposed projects, the synergies will enable additional train starts and increased throughput on this north-south corridor.

Appendix 3 – Details of FY2010 Projects
Norfolk Southern Rail Enhancement Fund Application
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Project Map





Priority 7 – Sampson Passing Track Extension

Project Location: Sampson, Augusta County, VA, on Norfolk Southern's Riverton-Roanoke main line. Project limits: mp H135.0 – H137.2

Owner of Property/Right of Way: Norfolk Southern Railway Company

Responsible Party for Continuous Maintenance of Project: Norfolk Southern Railway Company

Project Information:

Description of Project:

Sampson is located between Riverton and Roanoke, VA on Norfolk Southern's main artery between the Northeast and Tennessee. This line is a secondary main line today but will become a major component of the Crescent Corridor for premium intermodal traffic between the Northeast and two major Tennessee markets. This route is cleared for double stack container traffic and parallels Interstate 81.

The Riverton-Roanoke line is a single track main line, governed by signaled traffic control, with short (less than 8000') passing tracks about every ten miles. Trains pass or overtake each other at passing tracks. This project would upgrade the existing 5,872-foot passing track at Sampson to accommodate longer trains at higher speeds.

Longer passing tracks are badly needed between Shenandoah and Roanoke, about 130 miles. In that distance, there is only one place where long trains can meet or pass: between Vesuvius and Pkin, about three miles of double track on the ruling northbound grade, about 65 miles north of Roanoke and 60 miles south of Shenandoah, and which is encumbered with eight grade crossings throughout its length.

At present, trains using the passing track at Sampson are limited to 10 mph. Further, the passing track is only 5,872 feet long. Most of the 14-18 trains/day operating between Roanoke and Shenandoah are too long to fit into the passing track. NS proposes to replace 10% of the crossties in, and to surface, the existing passing track; to replace existing #12 turnouts with #20 turnouts; and to construct 5,800 feet of new track to enlarge the passing track to a total length of 11,600 feet. After completion, any train operating between Roanoke and Riverton will be able to meet or pass any other train at Sampson, and trains using the passing track will be able to operate over it at 25 mph or more.

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Project Objective:

The overall objective of the project is to increase capacity and to speed up train operations on the Riverton-Roanoke main line. This artery today handles merchandise, coal and grain, and will be an important component of the Crescent Corridor for premium intermodal traffic between the Northeast and the major truck markets in Tennessee.

The specific objective is to upgrade and extend the passing track at Sampson. NS trains incur an aggregate delay of 4 hours daily because of the inability to utilize fully the passing track at Sampson. Once the passing track is improved, aggregate delay will be 4 hours less than it is today.

Relationship to other projects under development by applicant or previously funded by this program:

This project complements FY2008 projects on the H-line at Front Royal. NS is completing the upgrading of the Marsh Run-Ashby passing track to main line standards and the construction of about 3.5 miles of new second main line to create a five mile segment of double track between mp H51.9 – H56.9 in the vicinity of the Virginia Inland Port (see NS's application of 6/13/07 for more detail). By upgrading and extending the Sampson passing track in FY2010 (along with the other passing tracks between Roanoke and Riverton described elsewhere in this Application as well as the five miles of double track north of Front Royal), NS will create ten locations between Roanoke and Hagerstown (240 miles) where two contemporary intermodal trains – Crescent Corridor or otherwise – will be able to meet or pass.

Describe the Public Benefit of Project:

Overall public benefits:

- This project, with the other siding extension projects mentioned above, will make possible Crescent Corridor premium intermodal service. At present, very few locations exist where two 8000' trains can pass each other between Hagerstown and Roanoke. The standard length of a Crescent Corridor intermodal train will be 8000'.
- By reducing aggregate delay, and by making freight rail more attractive to potential rail users, this project will help to improve air quality, conserve fuel (because of rail's efficiency advantage) and reduce truck traffic
- By increasing capacity, the project enables the rail mode to absorb more growth

Type of Project:

Project is rehabilitation (existing passing track) and new construction (passing track extension) of rail infrastructure. Includes modification to signal and communication equipment (signal upgrading and relocation, and relocation of fiber optic cable).

Application Scope of Work Covers: Entire project

Appendix 3 – Details of FY2010 Projects
Norfolk Southern Rail Enhancement Fund Application
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Project Budget Summary (2008 dollars):

Preliminary Service, Engineering, or Feasibility Study	\$ 216,890
Environmental Evaluation	\$ 235,750
Design Engineering	\$ 452,640
Right-of-way Acquisition	\$
Construction	\$7,147,940
Construction Management	\$ 660,100
Lease/Acquisition of Equipment	\$
Other (Relocate fiber optic cable)	\$ 716,680
	<hr/>
Total Project Budget	\$9,430,000

Rail Enhancement Funds Requested in this Application: \$ 6,601,000(70%)

This request is for capital costs only. NS will assume all ongoing maintenance and operating cost responsibilities and future capital costs.

No provision has been made for crossing closure or grade separation. If Norfolk Southern can successfully negotiate crossing closures as part of the project, the overall project cost may increase but such increase would be funded by Norfolk Southern, thereby increasing NS match to greater than 30%.

Note that these estimates are in 2008 dollars. Revised estimates may be necessary when project begins.

Local Match Required by Applicant: \$ 2,829,000 (30%)

If Overmatch, Provide Percentage: 0%

1) Match Breakdown by Source (include in-kind)

a. Provider of Local Match Norfolk Southern Railway

b. Status (confirmed/anticipated) Confirmed

2) Other Funding Sources Beyond Match Requirement

a. Provider of Over Match n/a

b. Status (confirmed/anticipated) n/a

Appendix 3 – Details of FY2010 Projects
Norfolk Southern Rail Enhancement Fund Application
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M. Project implementation schedule (based in months). List major milestones of the project.

Survey and Develop Plans:	3 Months
Acquire Right of Way:	3 Months
Bidding:	2 Months
Permitting:	2 Months
Relocation of Fiber Optic Line	1 Month
Grading:	4 Months
Track work:	3 Months
Total:	18 Months

Statement on how this Project promotes or does not preclude Dual/Multi-Access Use:

This project is on Norfolk Southern owned right-of-way on which only Norfolk Southern operates; the rail line will remain an exclusive Norfolk Southern route. There is no proposal to change current operations and allow dual access by another railroad on this track. (The competing north-south route of CSX Transportation, Inc. extends between Alexandria, VA and Rocky Mount, NC [via Richmond, VA].)

Also, Project anticipates intermodal freight growth and will enable service enhancements that will attract domestic truck traffic from many trucking companies. In this sense, Project promotes multi-access (i.e., by trucking companies) use.

List additional users of rail line, facility, and/or equipment: trucking companies using intermodal service offered by Norfolk Southern.

Identify any possible Environmental or other issues/concerns within the scope of this project.

Overall environmental effects are expected to be beneficial as rail freight is considerably more fuel efficient and less polluting than truck freight.

There are no known environmental issues or concerns at this time.

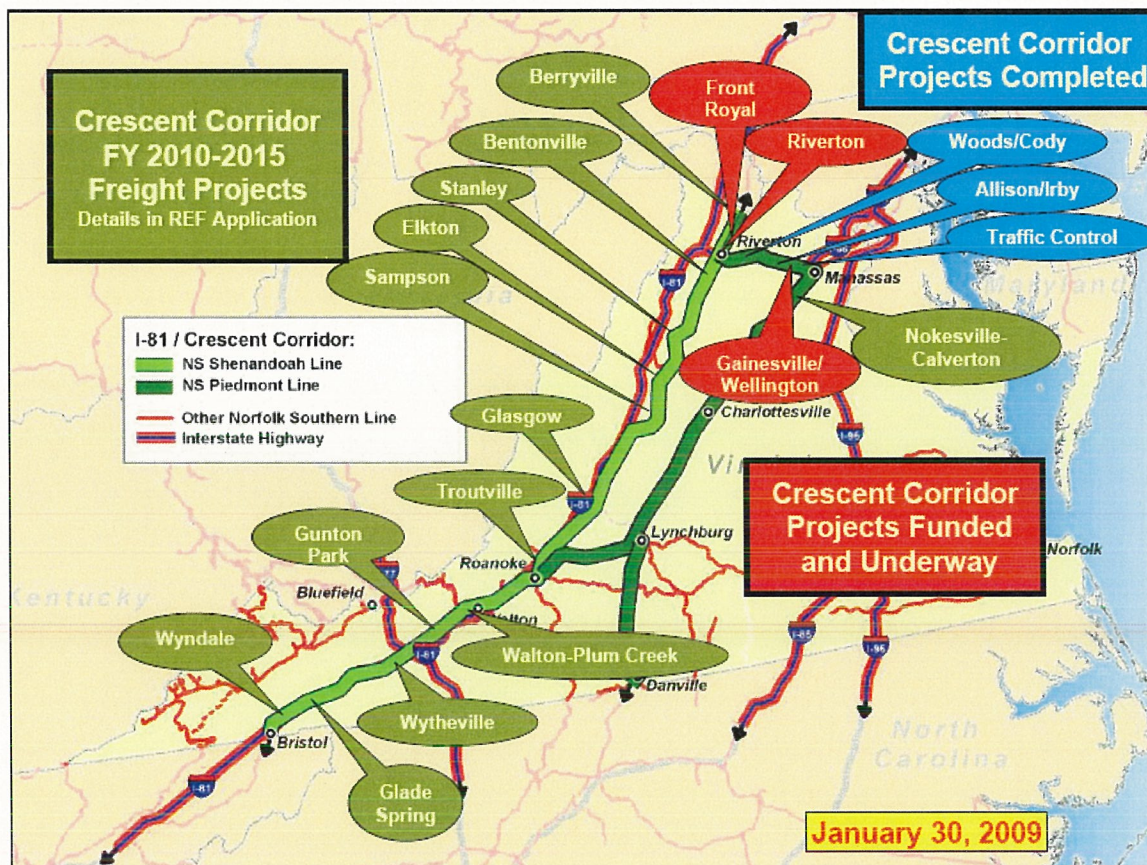
Added Capacity to Rail Corridor (Additional Railcars or Passengers)

When viewed in isolation, the expanded passing track at Sampson will reduce 4 hours aggregate train delay. When combined with the other seven passing track projects between Hagerstown and Roanoke described elsewhere in this Application, as well as the

Appendix 3 – Details of FY2010 Projects
Norfolk Southern Rail Enhancement Fund Application
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five miles of double track north of Front Royal, the aggregate train delay is reduced by approximately 30 hours per day. Reducing this delay will allow faster turn times for assets such as locomotives, crews and freight cars. When combined with other planned or proposed projects, the synergies will enable additional train starts and increased throughput on this north-south corridor.

Project Map



**NS Priority 7 – Sampson, VA
MP H135.2 – H137.3, Augusta County**

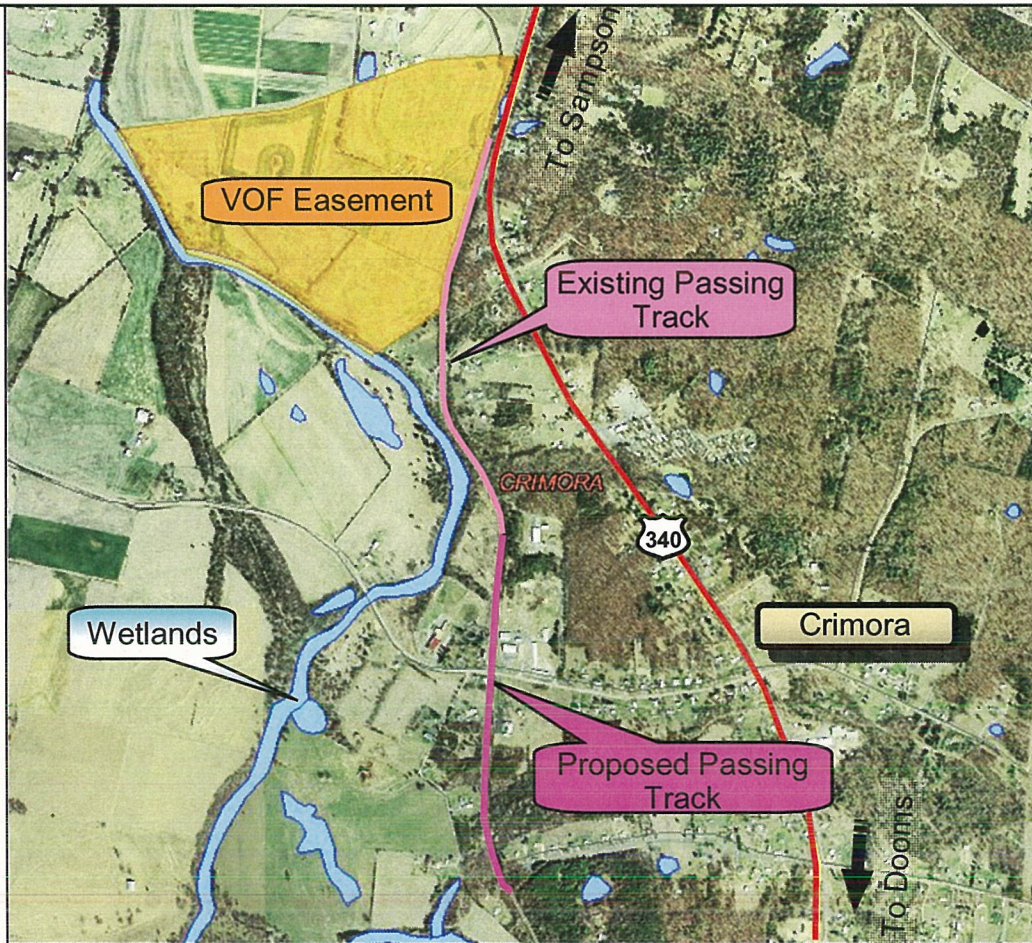


Diagram of Proposed Passing Track Extension – Sampson, VA
(Red line indicates location of new track construction)



Priority 8 – Wyndale Passing Track Construction

Project Location: Wyndale, Washington County, VA, on Norfolk Southern's Walton-Bristol main line. Project limits: mp NB397.2-NB399.5

Owner of Property/Right of Way: Norfolk Southern Railway Company

Responsible Party for Continuous Maintenance of Project: Norfolk Southern Railway Company

Project Information:

Description of Project:

Wyndale is located between Walton and Bristol, VA on Norfolk Southern's main artery between the Northeast and Tennessee. This line is a secondary main line today but will become a major component of the Crescent Corridor for premium intermodal traffic between the Northeast and two major Tennessee markets. This route is cleared for double stack container traffic and parallels Interstate 81.

The Walton-Bristol line, 107 miles, is a single track main line, governed by signaled traffic control, with short (less than 8000') passing tracks about every fifteen miles. Trains pass or overtake each other at passing tracks. This project would construct a new 11,000-foot passing track at Wyndale to accommodate longer trains at higher speeds.

Longer passing tracks are needed between Walton and Bristol. In that distance, there is only one passing track more than 8,000 feet in length – at Duncan, approximately midway between Walton and Bristol. Constructing a passing track at Wyndale, along with the other passing track projects in this application, will provide additional meeting points that will be essential before Crescent Corridor intermodal service can begin.

NS proposes to construct a new passing track 11,000 feet long, with #20 turnouts at either end. After completion, any train operating between Walton and Bristol will be able to meet or pass any other train at Wyndale, and will be able to operate over it at 25 mph or more.

Project Objective:

The overall objective of the project is to increase capacity and to speed up train operations on the Walton-Bristol main line. This artery today handles merchandise, coal and intermodal, and will be an important component of the Crescent Corridor for premium intermodal traffic between the Northeast and the major truck markets in Tennessee.

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The specific objective is to establish a point where trains can pass each other in the vicinity of Wyndale.

Relationship to other projects under development by applicant or previously funded by this program:

This project complements the FY2008 double track project on the H-line at Front Royal as well as the passing track improvement projects proposed between Roanoke and Hagerstown on the H-line. Together with the Walton, Glade Spring, Gunton Park and Wytheville passing track projects (described elsewhere in this application), NS will create a total of seventeen locations between Bristol and Hagerstown (390 miles) where two contemporary intermodal trains – Crescent Corridor or otherwise – will be able to meet or pass.

Describe the Public Benefit of Project:

Overall public benefits:

- Along with the other passing track extension projects mentioned above, this project will make possible Crescent Corridor premium intermodal service. At present, very few locations exist where two 8000' trains can pass each other between Hagerstown and Bristol. The standard length of a Crescent Corridor intermodal train will be 8000'.
- By reducing aggregate delay, and by making freight rail more attractive to potential rail users, this project will help to improve air quality, conserve fuel (because of rail's efficiency advantage) and reduce truck traffic
- By increasing capacity, the project enables the rail mode to absorb more growth

Type of Project:

Project is new construction of rail infrastructure. Includes signal and communication equipment (signal upgrading and relocation, and relocation of fiber optic cable).

Application Scope of Work Covers: Entire project

Project Budget Summary (2008 dollars):

Preliminary Service, Engineering, or Feasibility Study	\$ 179,860
Environmental Evaluation	\$ 195,500
Design Engineering	\$ 375,360
Right-of-way Acquisition	\$
Construction	\$5,927,560
Construction Management	\$ 547,400
Lease/Acquisition of Equipment	\$
Other (Relocate fiber optic cable)	\$ 594,320
	=====

**Appendix 3 – Details of FY2010 Projects
Norfolk Southern Rail Enhancement Fund Application
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Total Project Budget

\$7,820,000

Rail Enhancement Funds Requested in this Application: \$ 5,474,000 (70%)_____

This request is for capital costs only. NS will assume all ongoing maintenance and operating cost responsibilities and future capital costs.

No provision has been made for crossing closure or grade separation. If Norfolk Southern can successfully negotiate crossing closures as part of the project, the overall project cost may increase but such increase would be funded by Norfolk Southern, thereby increasing NS match to greater than 30%.

Note that these estimates are in 2008 dollars. Revised estimates may be necessary when project begins.

Local Match Required by Applicant: \$ 2,346,000 (30%)_____

If Overmatch, Provide Percentage: 0%

1) Match Breakdown by Source (include in-kind)

a. Provider of Local Match Norfolk Southern Railway_____

b. Status (confirmed/anticipated) Confirmed_____

2) Other Funding Sources Beyond Match Requirement

a. Provider of Over Match n/a_____

b. Status (confirmed/anticipated) n/a

M. Project implementation schedule (based in months). List major milestones of the project.

Survey and Develop Plans:	3 Months
Acquire Right of Way:	3 Months
Bidding:	2 Months
Permitting:	2 Months
Relocation of Fiber Optic Line	1 Month
Grading:	4 Months
Track work:	3 Months
Total:	18 Months

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Norfolk Southern Rail Enhancement Fund Application
January 30, 2009

Statement on how this Project promotes or does not preclude Dual/Multi-Access Use:

This project is on Norfolk Southern owned right-of-way on which only Norfolk Southern operates; the rail line will remain an exclusive Norfolk Southern route. There is no proposal to change current operations and allow dual access by another railroad on this track. (The competing north-south route of CSX Transportation, Inc. extends between Alexandria, VA and Rocky Mount, NC [via Richmond, VA].)

Also, Project anticipates intermodal freight growth and will enable service enhancements that will attract domestic truck traffic from many trucking companies. In this sense, Project promotes multi-access (i.e., by trucking companies) use.

List additional users of rail line, facility, and/or equipment: trucking companies using intermodal service offered by Norfolk Southern.

Identify any possible Environmental or other issues/concerns within the scope of this project.

Overall environmental effects are expected to be beneficial as rail freight is considerably more fuel efficient and less polluting than truck freight.

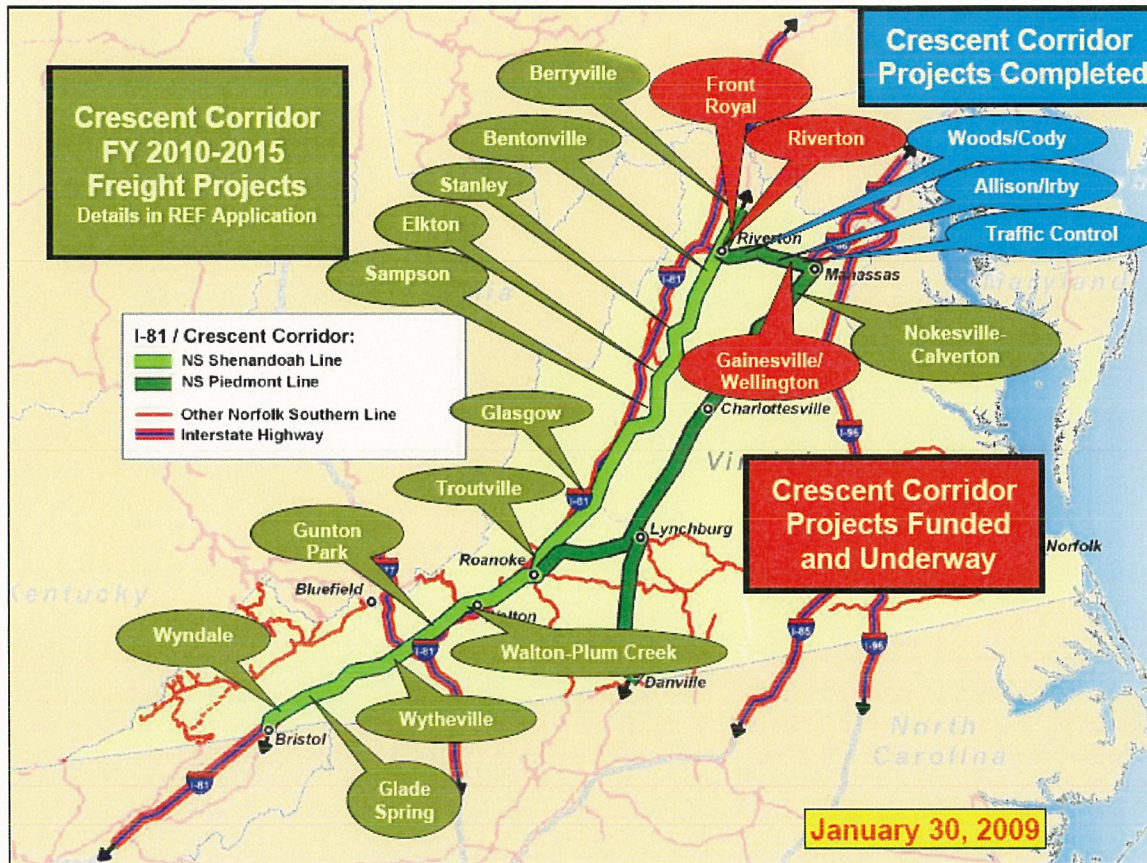
There are no known environmental issues or concerns at this time.

Added Capacity to Rail Corridor (Additional Railcars or Passengers)

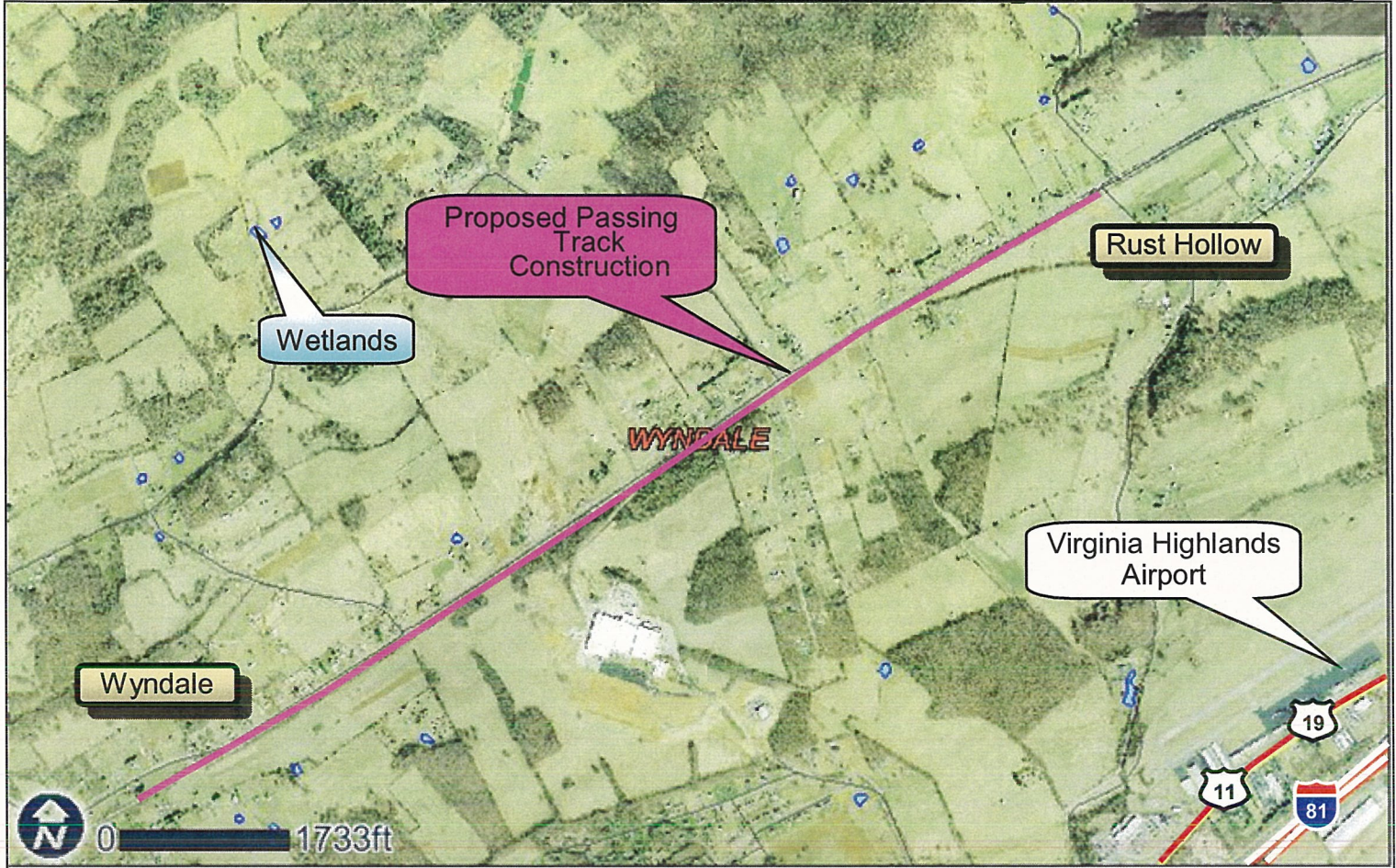
When combined with the passing track extensions and double track projects proposed between Hagerstown and Bristol described elsewhere in this Application, the aggregate train delay is reduced by approximately 45 hours per day. Reducing this delay will allow faster turn times for assets such as locomotives, crews and freight cars. When combined with other planned or proposed projects, the synergies will enable additional train starts and increased throughput on this north-south corridor.

Appendix 3 – Details of FY2010 Projects
Norfolk Southern Rail Enhancement Fund Application
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Project Map

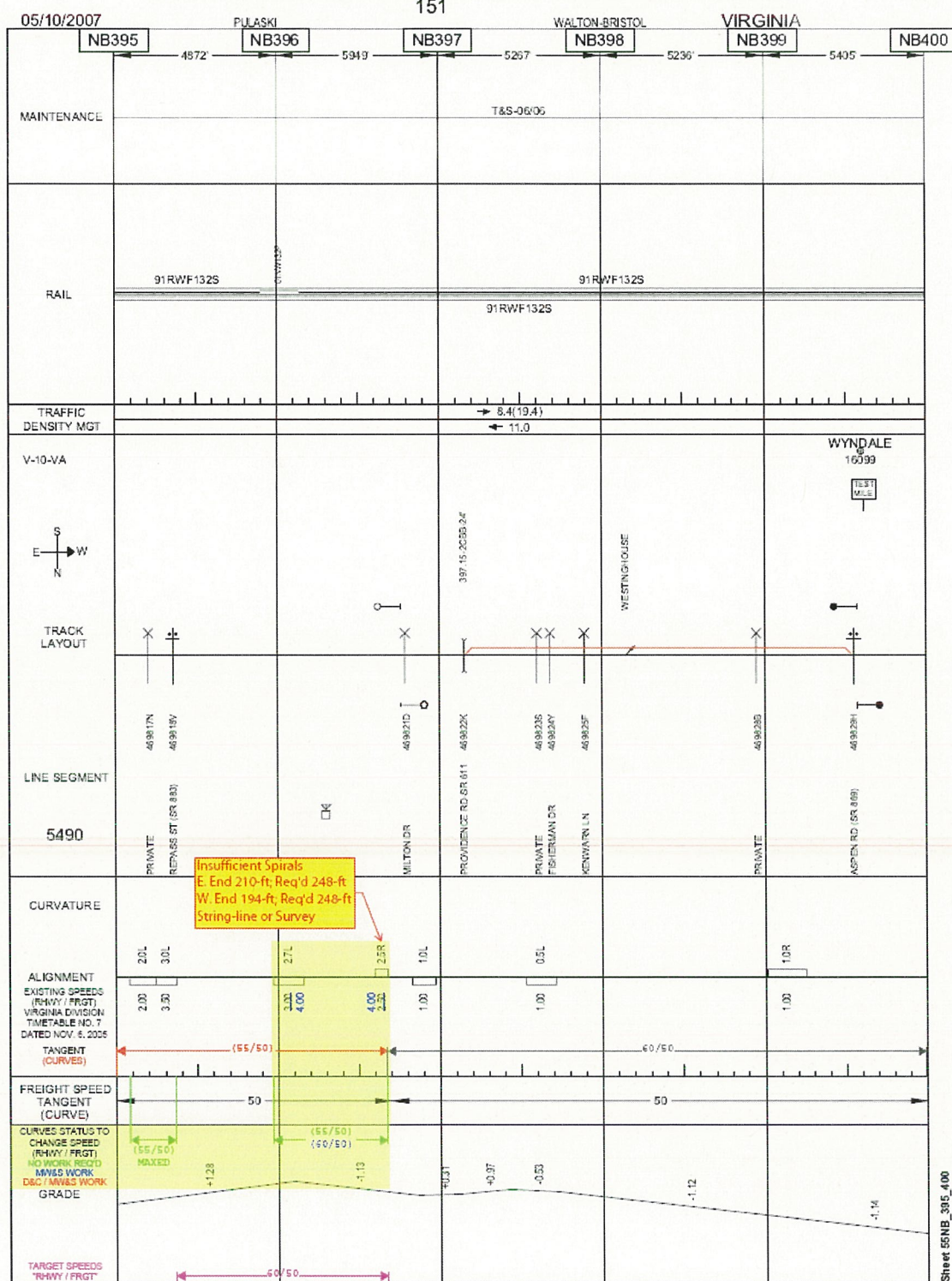


NS Priority 8 – Wyndale, VA
MP NB397.2 – NB399.5, Washington County



Appendix 3 – Details of FY2010 Projects
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Diagram of Proposed Passing Track Construction – Wyndale, VA
(Red line indicates location of new track construction)



NORFOLK SOUTHERN - DESIGN AND CONSTRUCTION DEPARTMENT
 R-1 4/03/08 per C&S and B&B comments; R-2 5/28/08 per MW&S comments; format changes

MARCH 19, 2008
 JCB

Priority 9 – Walton-Plum Creek Double Track Construction

Project Location: Walton-Plum Creek, in Montgomery County and the city of Radford, VA, on Norfolk Southern's Walton-Bristol main line. Project limits: mp N297.6-NB299.0

Owner of Property/Right of Way: Norfolk Southern Railway Company

Responsible Party for Continuous Maintenance of Project: Norfolk Southern Railway Company

Project Information:

Description of Project:

Walton is the junction west of Christiansburg where NS's route to Bristol diverges from the Roanoke-Bluefield main line, in western Montgomery County. The Bristol Line is single track between Walton and Plum Creek (about 1.4 miles). From Plum Creek (mp NB299) to the west of Radford (mp NB302), there are two main line tracks.

The Walton-Bristol line, 107 miles, is mostly single track, governed by signaled traffic control, with short (less than 8000') passing tracks about every fifteen miles. Longer passing tracks are needed between Walton and Bristol. In that distance, there is only one passing track more than 8,000 feet in length – at Duncan, approximately midway between Walton and Bristol. Creating three miles of double track where the Bristol Line joins the Roanoke-Bluefield Line, along with the other passing track projects in this application, will provide additional meeting points that will be essential before Crescent Corridor intermodal service can begin.

NS proposes to construct 1.4 miles of second main line and to upgrade 1.6+ miles of existing passing track to create about three miles of double track, with #20 turnouts at each end. After completion, any train operating between Walton and Bristol will be able to meet or pass any other train at between Walton and Plum Creek, and will be able to operate over this line segment at normal main line speeds.

Project Objective:

The overall objective of the project is to increase capacity and to speed up train operations on the Walton-Bristol main line. This artery today handles merchandise, coal and intermodal, and will be an important component of the Crescent Corridor for premium intermodal traffic between the Northeast and the major truck markets in Tennessee.

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The specific objective is to establish a point where trains can pass each other in the vicinity of Radford.

Relationship to other projects under development by applicant or previously funded by this program:

This project complements the FY2008 double track project on the H-line at Front Royal as well as the passing track improvement projects proposed between Roanoke and Hagerstown on the H-line. Together with the Wyndale, Glade Spring, Gunton Park and Wytheville passing track projects (described elsewhere in this application), NS will create a total of seventeen locations between Bristol and Hagerstown (390 miles) where two contemporary intermodal trains – Crescent Corridor or otherwise – will be able to meet or pass.

Describe the Public Benefit of Project:

Overall public benefits:

- Along with the other passing track extension projects mentioned above, this project will make possible Crescent Corridor premium intermodal service. At present, very few locations exist where two 8000' trains can pass each other between Hagerstown and Bristol. The standard length of a Crescent Corridor intermodal train will be 8000'.
- By reducing aggregate delay, and by making freight rail more attractive to potential rail users, this project will help to improve air quality, conserve fuel (because of rail's efficiency advantage) and reduce truck traffic
- By increasing capacity, the project enables the rail mode to absorb more growth

Type of Project:

Project is new construction of rail infrastructure. Includes signal and communication equipment (signal upgrading and relocation, and relocation of fiber optic cable).

Application Scope of Work Covers: Entire project

Project Budget Summary (2008 dollars):

Preliminary Service, Engineering, or Feasibility Study	\$ 367,540
Environmental Evaluation	\$ 399,500
Design Engineering	\$ 767,040
Right-of-way Acquisition	\$
Construction	\$12,096,860
Construction Management	\$ 1,134,580
Lease/Acquisition of Equipment	\$
Other (Relocate fiber optic cable)	\$ 1,214,480
	=====

**Appendix 3 – Details of FY2010 Projects
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January 30, 2009**

Total Project Budget \$15,980,000

Rail Enhancement Funds Requested in this Application: \$ 11,186,000 (70%)

This request is for capital costs only. NS will assume all ongoing maintenance and operating cost responsibilities and future capital costs.

No provision has been made for crossing closure or grade separation. If Norfolk Southern can successfully negotiate crossing closures as part of the project, the overall project cost may increase but such increase would be funded by Norfolk Southern, thereby increasing NS match to greater than 30%.

Note that these estimates are in 2008 dollars. Revised estimates may be necessary when project begins.

Local Match Required by Applicant: \$ 4,794,000 (30%)

If Overmatch, Provide Percentage: 0%

1) Match Breakdown by Source (include in-kind)

a. Provider of Local Match Norfolk Southern Railway

b. Status (confirmed/anticipated) Confirmed

2) Other Funding Sources Beyond Match Requirement

a. Provider of Over Match n/a

b. Status (confirmed/anticipated) n/a

M. Project implementation schedule (based in months). List major milestones of the project.

Survey and Develop Plans:	3 Months
Acquire Right of Way:	3 Months
Bidding:	2 Months
Permitting:	2 Months
Relocation of Fiber Optic Line	1 Month
Grading:	4 Months
Track work:	3 Months
Total:	18 Months

Appendix 3 – Details of FY2010 Projects
Norfolk Southern Rail Enhancement Fund Application
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Statement on how this Project promotes or does not preclude Dual/Multi-Access Use:

This project is on Norfolk Southern owned right-of-way on which only Norfolk Southern operates; the rail line will remain an exclusive Norfolk Southern route. There is no proposal to change current operations and allow dual access by another railroad on this track. (The competing north-south route of CSX Transportation, Inc. extends between Alexandria, VA and Rocky Mount, NC [via Richmond, VA].)

Also, Project anticipates intermodal freight growth and will enable service enhancements that will attract domestic truck traffic from many trucking companies. In this sense, Project promotes multi-access (i.e., by trucking companies) use.

List additional users of rail line, facility, and/or equipment: trucking companies using intermodal service offered by Norfolk Southern.

Identify any possible Environmental or other issues/concerns within the scope of this project.

Overall environmental effects are expected to be beneficial as rail freight is considerably more fuel efficient and less polluting than truck freight.

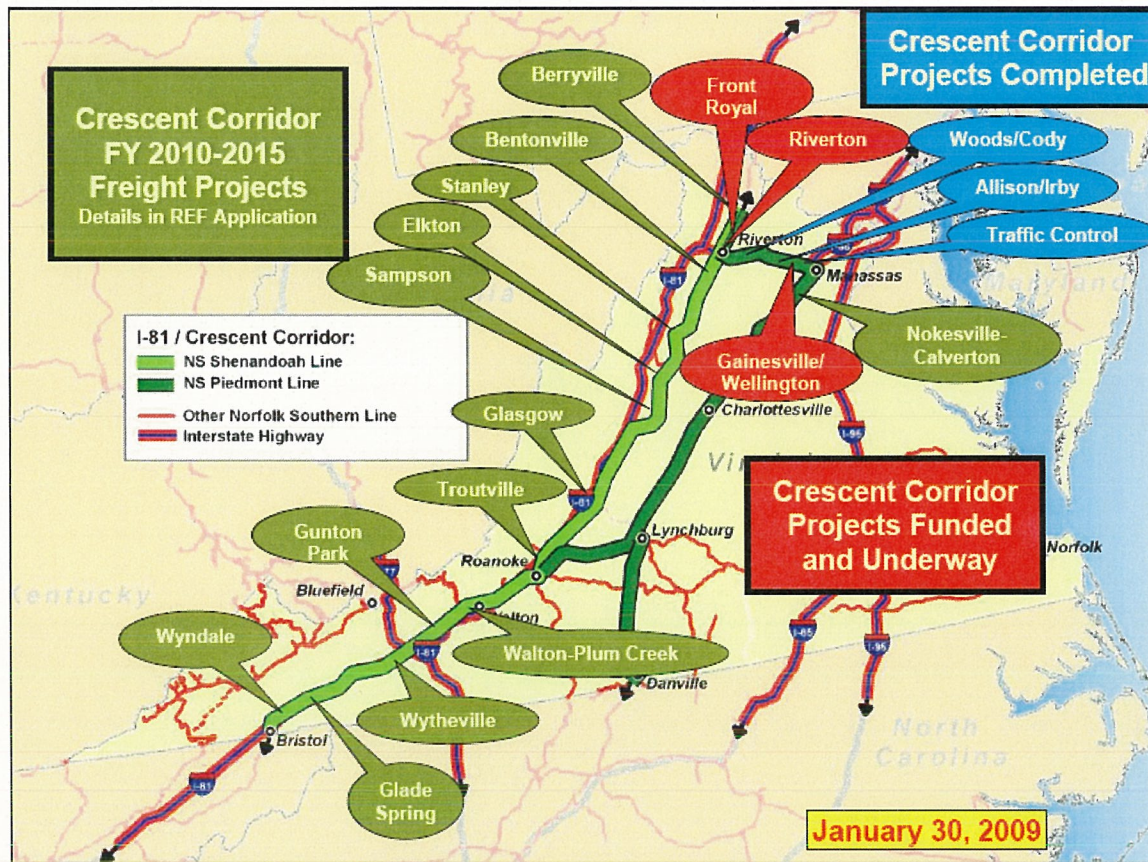
There may be a wetland area between Walton and Plum Creek on the New River side of the single track main line.

Added Capacity to Rail Corridor (Additional Railcars or Passengers)

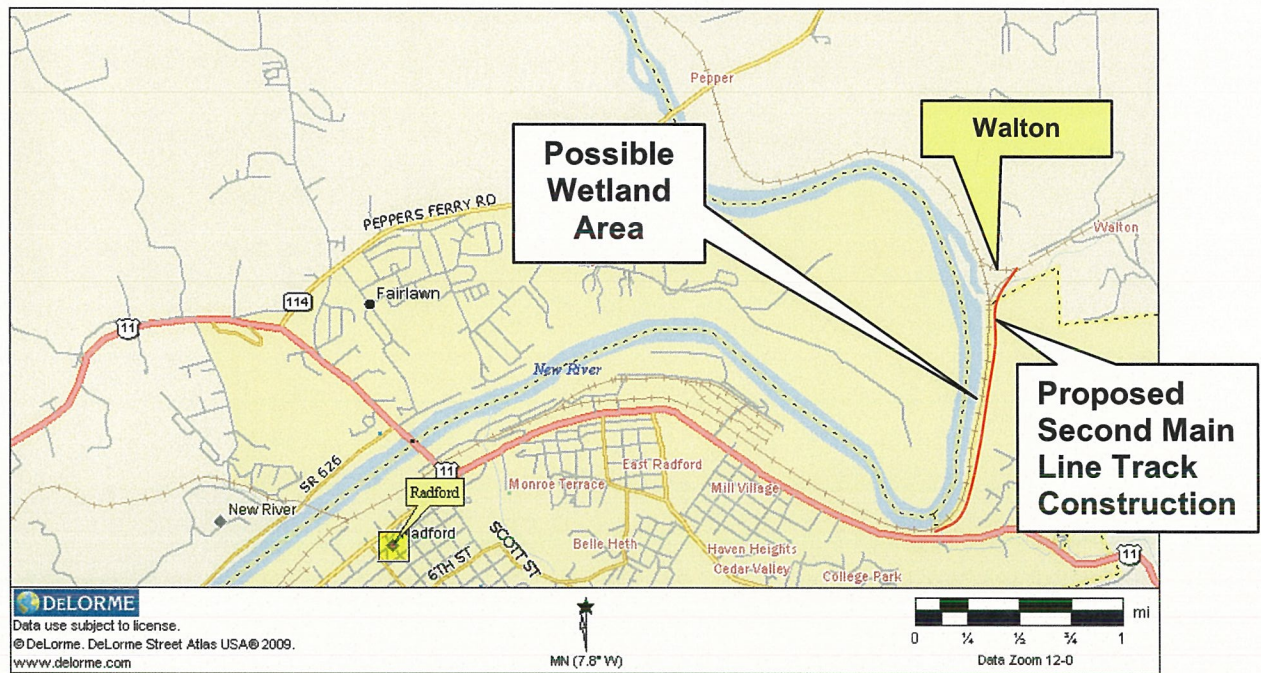
When combined with the passing track extensions and double track projects proposed between Hagerstown and Bristol described elsewhere in this Application, the aggregate train delay is reduced by approximately 45 hours per day. Reducing this delay will allow faster turn times for assets such as locomotives, crews and freight cars. When combined with other planned or proposed projects, the synergies will enable additional train starts and increased throughput on this north-south corridor.

Appendix 3 – Details of FY2010 Projects
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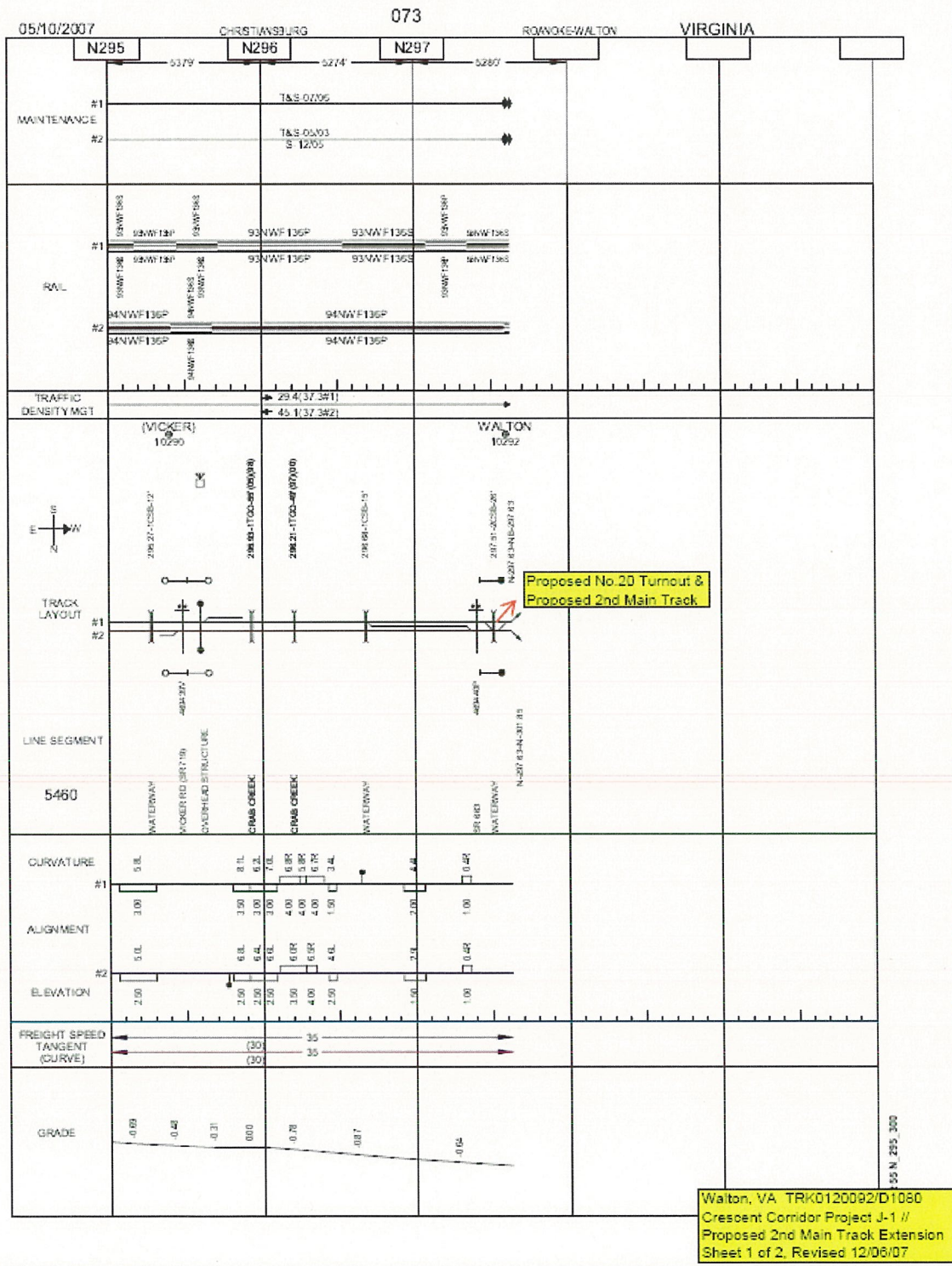
Project Map



**NS Priority 9 – Walton, VA
MP N297.6 – NB299.0
Montgomery County and City of Radford**

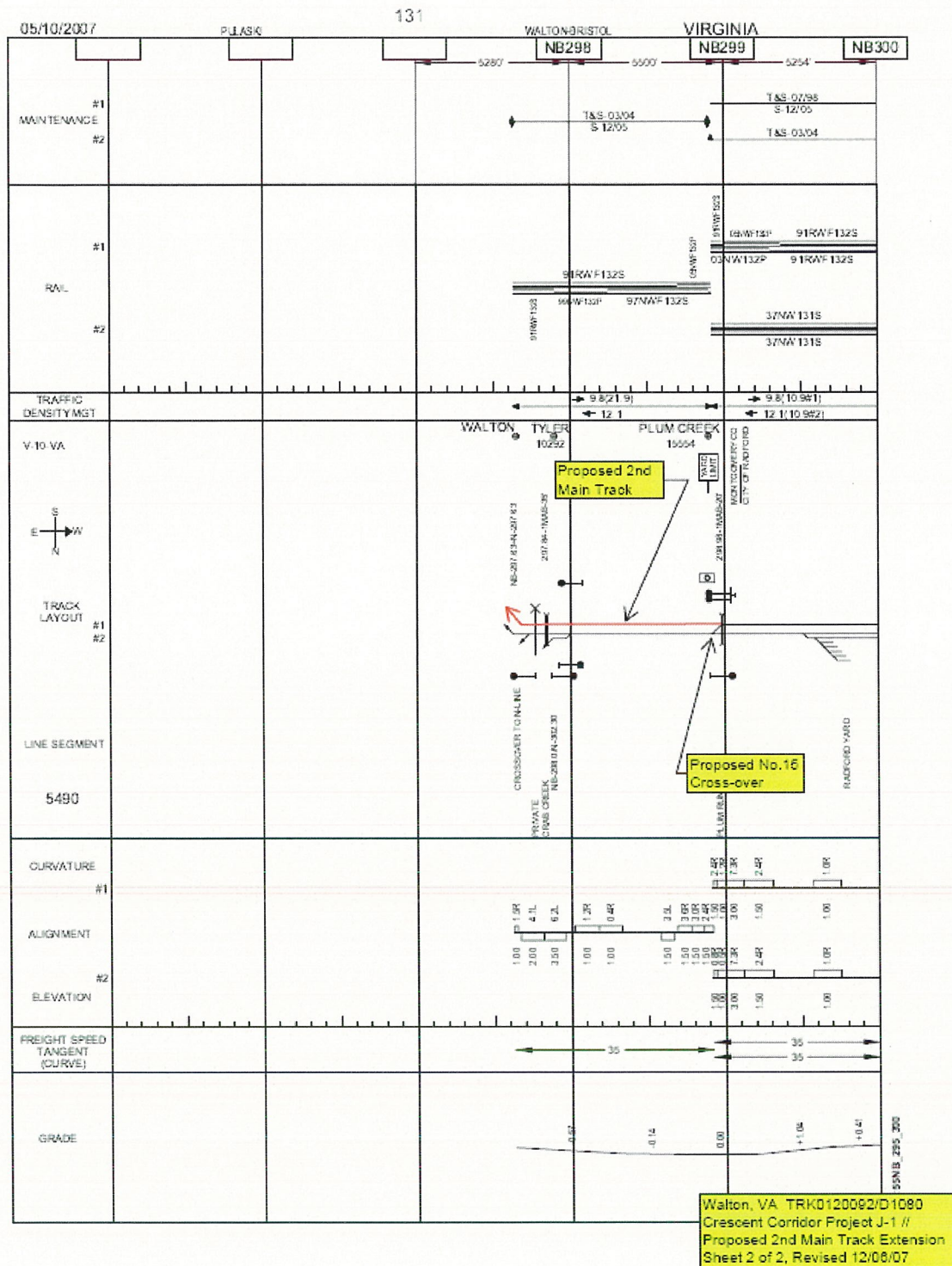


Diagrams of Proposed Second Main Track - Walton-Plum Creek, VA (red line indicates location of new track)



construction)

Appendix 3 – Details of FY2010 Projects
Norfolk Southern Rail Enhancement Fund Application
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Priority 10 – Glade Spring Passing Track Extension

Project Location: Glade Spring, Washington County and Glade Spring corporate limits, VA, on Norfolk Southern's Walton-Bristol main line. Project limits: mp NB380.4 – NB382.9

Owner of Property/Right of Way: Norfolk Southern Railway Company

Responsible Party for Continuous Maintenance of Project: Norfolk Southern Railway Company

Project Information:

Description of Project:

Glade Spring is located between Walton and Bristol, VA on Norfolk Southern's main artery between the Northeast and Tennessee. This line is a secondary main line today but will become a major component of the Crescent Corridor for premium intermodal traffic between the Northeast and two major Tennessee markets. This route is cleared for double stack container traffic and parallels Interstate 81.

The Walton-Bristol line, 107 miles, is a single track main line, governed by signaled traffic control, with short (less than 8000') passing tracks about every fifteen miles. Trains pass or overtake each other at passing tracks. This project would upgrade the existing 5,796-foot passing track at Glade Spring to accommodate longer trains at higher speeds.

Longer passing tracks are needed between Walton and Bristol. In that distance, there is only one passing track more than 8,000 feet in length – at Duncan, approximately midway between Walton and Bristol. Extending the Glade Spring passing track, along with the other passing track projects in this application, will provide additional meeting points that will be essential before Crescent Corridor intermodal service can begin.

At present, trains using the passing track at Glade Spring are limited to 10 mph. Further, the passing track is only 5,796 feet long. Most of the 10 trains/day operating between Walton and Bristol are too long to fit into the passing track. NS proposes to replace 10% of the cross-ties in, and to surface, the existing passing track; to replace existing #12 turnouts with #20 turnouts; and to construct 7,200 feet of new track to enlarge the passing track to a total length of 13,000 feet. After completion, any train operating between Walton and Bristol will be able to meet or pass any other train at Glade Spring, and trains using the passing track will be able to operate over it at 25 mph or more.

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Project Objective:

The overall objective of the project is to increase capacity and to speed up train operations on the Walton-Bristol main line. This artery today handles merchandise, coal and intermodal, and will be an important component of the Crescent Corridor for premium intermodal traffic between the Northeast and the major truck markets in Tennessee.

The specific objective is to upgrade and extend the passing track at Glade Spring. NS trains incur an aggregate delay of 4 hours daily because of the inability to utilize fully the passing track at Glade Spring. Once the passing track is improved, aggregate delay will be 4 hours less than it is today.

Relationship to other projects under development by applicant or previously funded by this program:

This project complements the FY2008 double track project on the H-line at Front Royal as well as the passing track improvement projects proposed between Roanoke and Hagerstown on the H-line. Together with the Walton, Wyndale, Gunton Park and Wytheville passing track projects (described elsewhere in this application), NS will create a total of seventeen locations between Bristol and Hagerstown (390 miles) where two contemporary intermodal trains – Crescent Corridor or otherwise – will be able to meet or pass.

Describe the Public Benefit of Project:

Overall public benefits:

- Along with the other passing track extension projects mentioned above, this project will make possible Crescent Corridor premium intermodal service. At present, very few locations exist where two 8000' trains can pass each other between Hagerstown and Bristol. The standard length of a Crescent Corridor intermodal train will be 8000'.
- By reducing aggregate delay, and by making freight rail more attractive to potential rail users, this project will help to improve air quality, conserve fuel (because of rail's efficiency advantage) and reduce truck traffic
- By increasing capacity, the project enables the rail mode to absorb more growth

Type of Project:

Project is rehabilitation (existing passing track) and new construction (passing track extension) of rail infrastructure. Includes modification to signal and communication equipment (signal upgrading and relocation, and relocation of fiber optic cable).

Appendix 3 – Details of FY2010 Projects
Norfolk Southern Rail Enhancement Fund Application
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Application Scope of Work Covers: Entire project

Project Budget Summary (2008 dollars):

Preliminary Service, Engineering, or Feasibility Study	\$ 126,960
Environmental Evaluation	\$ 138,000
Design Engineering	\$ 264,960
Right-of-way Acquisition	\$
Construction	\$4,184,160
Construction Management	\$ 386,400
Lease/Acquisition of Equipment	\$
Other (Relocate fiber optic cable)	\$ 419,520
	=====
Total Project Budget	\$5,520,000

Rail Enhancement Funds Requested in this Application: \$ 3,864,000 (70%)

This request is for capital costs only. NS will assume all ongoing maintenance and operating cost responsibilities and future capital costs.

No provision has been made for crossing closure or grade separation. If Norfolk Southern can successfully negotiate crossing closures as part of the project, the overall project cost may increase but such increase would be funded by Norfolk Southern, thereby increasing NS match to greater than 30%.

Note that these estimates are in 2008 dollars. Revised estimates may be necessary when project begins.

Local Match Required by Applicant: \$ 1,656,000 (30%)

If Overmatch, Provide Percentage: 0%

1) Match Breakdown by Source (include in-kind)

- a. Provider of Local Match Norfolk Southern Railway
- b. Status (confirmed/anticipated) Confirmed

2) Other Funding Sources Beyond Match Requirement

- a. Provider of Over Match n/a
- b. Status (confirmed/anticipated) n/a

Appendix 3 – Details of FY2010 Projects
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M. Project implementation schedule (based in months). List major milestones of the project.

Survey and Develop Plans:	3 Months
Acquire Right of Way:	3 Months
Bidding:	2 Months
Permitting:	2 Months
Relocation of Fiber Optic Line	1 Month
Grading:	4 Months
Track work:	3 Months
Total:	18 Months

Statement on how this Project promotes or does not preclude Dual/Multi-Access Use:

This project is on Norfolk Southern owned right-of-way on which only Norfolk Southern operates; the rail line will remain an exclusive Norfolk Southern route. There is no proposal to change current operations and allow dual access by another railroad on this track. (The competing north-south route of CSX Transportation, Inc. extends between Alexandria, VA and Rocky Mount, NC [via Richmond, VA

Also, Project anticipates intermodal freight growth and will enable service enhancements that will attract domestic truck traffic from many trucking companies. In this sense, Project promotes multi-access (i.e., by trucking companies) use.

List additional users of rail line, facility, and/or equipment: trucking companies using intermodal service offered by Norfolk Southern.

Identify any possible Environmental or other issues/concerns within the scope of this project.

Overall environmental effects are expected to be beneficial as rail freight is considerably more fuel efficient and less polluting than truck freight.

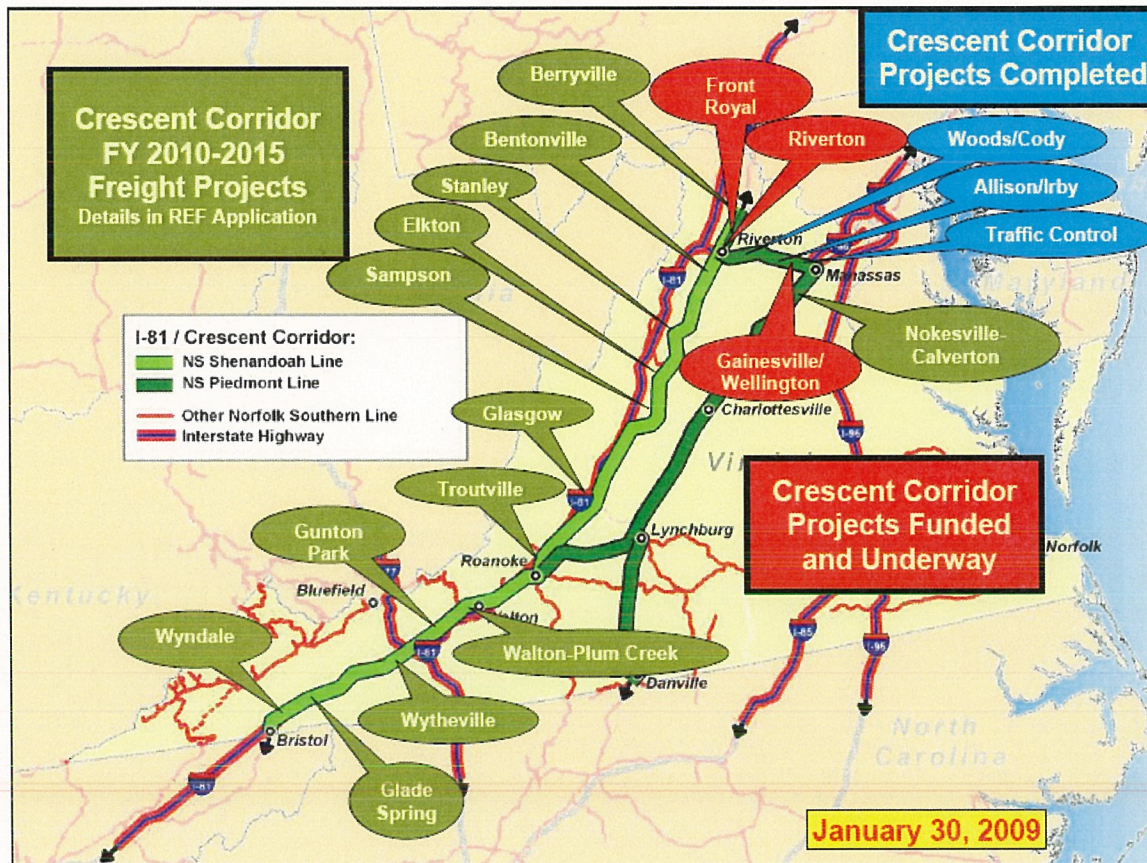
There are no known environmental issues or concerns at this time.

Added Capacity to Rail Corridor (Additional Railcars or Passengers)

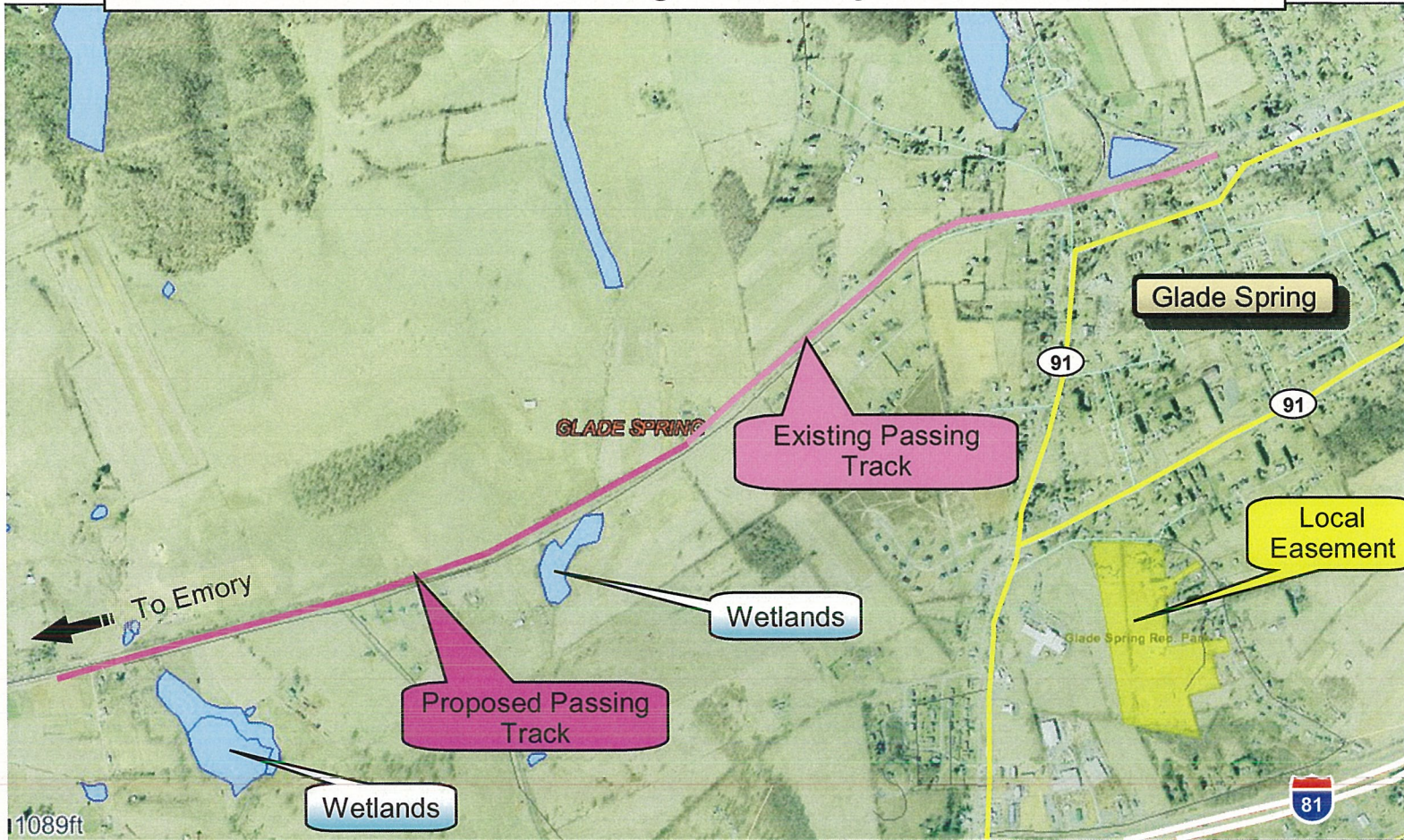
When viewed in isolation, the expanded passing track at Glade Spring will reduce 4 hours aggregate train delay. When combined with the other passing track extension and double track projects proposed between Hagerstown and Bristol described elsewhere in this Application, the aggregate train delay is reduced by approximately 45 hours per day. Reducing this delay will allow faster turn times for assets such as locomotives, crews and freight cars. When combined with other planned or proposed projects, the synergies will enable additional train starts and increased throughput on this north-south corridor.

Appendix 3 – Details of FY2010 Projects
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Project Map

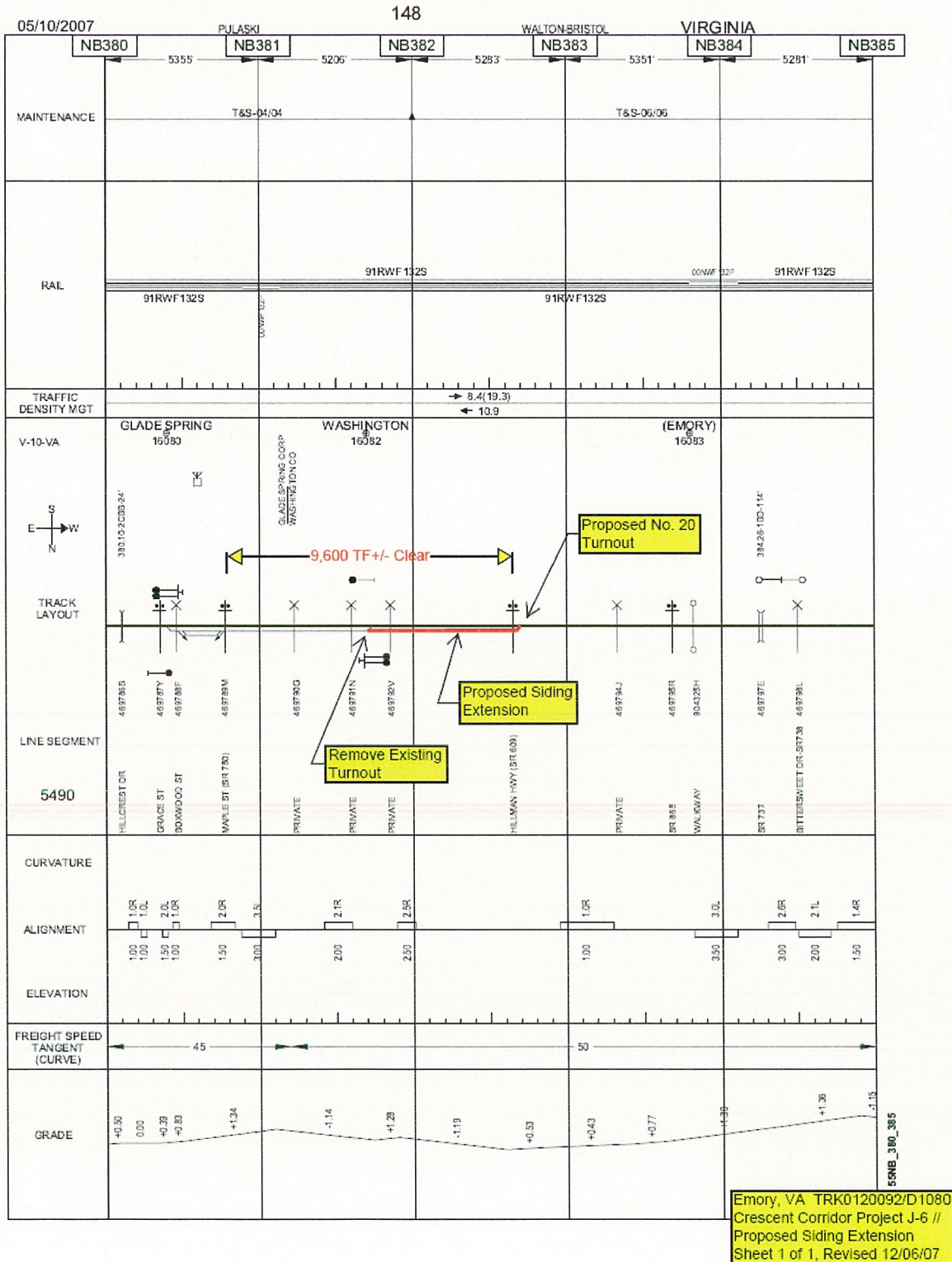


**NS Priority 10 – Glade Spring, VA
MP NB380.4 – NB382.9, City of Glade Spring and
Washington County**



Appendix 3 – Details of FY2010 Projects
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January 30, 2009

Diagram of Proposed Passing Track Extension – Glade Spring, VA
(Red line indicates location of new track construction)



Priority 11 – Gunton Park Passing Track Extension

Project Location: Gunton Park, Pulaski and Wythe Counties, VA, on Norfolk Southern's Walton-Bristol main line. Project limits: mp NB322.1-NB324.2

Owner of Property/Right of Way: Norfolk Southern Railway Company

Responsible Party for Continuous Maintenance of Project: Norfolk Southern Railway Company

Project Information:

Description of Project:

Gunton Park is located between Walton and Bristol, VA on Norfolk Southern's main artery between the Northeast and Tennessee. This line is a secondary main line today but will become a major component of the Crescent Corridor for premium intermodal traffic between the Northeast and two major Tennessee markets. This route is cleared for double stack container traffic and parallels Interstate 81.

The Walton-Bristol line, 107 miles, is a single track main line, governed by signaled traffic control, with short (less than 8000') passing tracks about every fifteen miles. Trains pass or overtake each other at passing tracks. This project would upgrade the existing 6,189-foot passing track at Gunton Park to accommodate longer trains at higher speeds.

Longer passing tracks are needed between Walton and Bristol. In that distance, there is only one passing track more than 8,000 feet in length – at Duncan, approximately midway between Walton and Bristol. Extending the Gunton Park passing track, along with the other twelve passing track projects in this application, will provide additional meeting points that will be essential before Crescent Corridor intermodal service can begin.

At present, trains using the passing track at Gunton Park are limited to 10 mph. Further, the passing track is only 6,189 feet long. Most of the 10 trains/day operating between Walton and Bristol are too long to fit into the passing track. NS proposes to replace 10% of the crossties in, and to surface, the existing passing track; to replace existing #12 turnouts with #20 turnouts; and to construct 4,800 feet of new track to enlarge the passing track to a total length of 11,000 feet. After completion, any train operating between Walton and Bristol will be able to meet or pass any other train at Gunton Park, and trains using the passing track will be able to operate over it at 25 mph or more.

**Appendix 3 – Details of FY2010 Projects
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Project Objective:

The overall objective of the project is to increase capacity and to speed up train operations on the Walton-Bristol main line. This artery today handles merchandise, coal and intermodal, and will be an important component of the Crescent Corridor for premium intermodal traffic between the Northeast and the major truck markets in Tennessee.

The specific objective is to upgrade and extend the passing track at Gunton Park. NS trains incur an aggregate delay of 4 hours daily because of the inability to utilize fully the passing track at Gunton Park. Once the passing track is improved, aggregate delay will be 4 hours less than it is today.

Relationship to other projects under development by applicant or previously funded by this program:

This project complements the FY2008 double track project on the H-line at Front Royal as well as the passing track improvement projects proposed between Roanoke and Hagerstown on the H-line. Together with the Walton, Wyndale, Glade Spring and Wytheville passing track projects (described elsewhere in this application), NS will create a total of seventeen locations between Bristol and Hagerstown (390 miles) where two contemporary intermodal trains – Crescent Corridor or otherwise – will be able to meet or pass.

Describe the Public Benefit of Project:

Overall public benefits:

- Along with the other passing track extension projects mentioned above, this project will make possible Crescent Corridor premium intermodal service. At present, very few locations exist where two 8000' trains can pass each other between Hagerstown and Bristol. The standard length of a Crescent Corridor intermodal train will be 8000'.
- By reducing aggregate delay, and by making freight rail more attractive to potential rail users, this project will help to improve air quality, conserve fuel (because of rail's efficiency advantage) and reduce truck traffic
- By increasing capacity, the project enables the rail mode to absorb more growth

Type of Project:

Project is rehabilitation (existing passing track) and new construction (passing track extension) of rail infrastructure. Includes modification to signal and communication equipment (signal upgrading and relocation, and relocation of fiber optic cable).

Application Scope of Work Covers: Entire project

Appendix 3 – Details of FY2010 Projects
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Project Budget Summary (2008 dollars):

Preliminary Service, Engineering, or Feasibility Study	\$ 138,230
Environmental Evaluation	\$ 150,250
Design Engineering	\$ 288,480
Right-of-way Acquisition	\$
Construction	\$4,555,580
Construction Management	\$ 420,700
Lease/Acquisition of Equipment	\$
Other (Relocate fiber optic cable)	\$ 456,760
	=====
Total Project Budget	\$6,010,000

Rail Enhancement Funds Requested in this Application: \$ 4,207,000 (70%)

This request is for capital costs only. NS will assume all ongoing maintenance and operating cost responsibilities and future capital costs.

No provision has been made for crossing closure or grade separation. If Norfolk Southern can successfully negotiate crossing closures as part of the project, the overall project cost may increase but such increase would be funded by Norfolk Southern, thereby increasing NS match to greater than 30%.

Note that these estimates are in 2008 dollars. Revised estimates may be necessary when project begins.

Local Match Required by Applicant: \$ 1,803,000 (30%)

If Overmatch, Provide Percentage: 0%

1) Match Breakdown by Source (include in-kind)

a. Provider of Local Match Norfolk Southern Railway

b. Status (confirmed/anticipated) Confirmed

2) Other Funding Sources Beyond Match Requirement

a. Provider of Over Match n/a

b. Status (confirmed/anticipated) n/a

Appendix 3 – Details of FY2010 Projects
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M. Project implementation schedule (based in months). List major milestones of the project.

Survey and Develop Plans:	3 Months
Acquire Right of Way:	3 Months
Bidding:	2 Months
Permitting:	2 Months
Relocation of Fiber Optic Line	1 Month
Grading:	4 Months
Track work:	3 Months
Total:	18 Months

Statement on how this Project promotes or does not preclude Dual/Multi-Access Use:

This project is on Norfolk Southern owned right-of-way on which only Norfolk Southern operates; the rail line will remain an exclusive Norfolk Southern route. There is no proposal to change current operations and allow dual access by another railroad on this track. (The competing north-south route of CSX Transportation, Inc. extends between Alexandria, VA and Rocky Mount, NC [via Richmond, VA].)

Also, Project anticipates intermodal freight growth and will enable service enhancements that will attract domestic truck traffic from many trucking companies. In this sense, Project promotes multi-access (i.e., by trucking companies) use.

List additional users of rail line, facility, and/or equipment: trucking companies using intermodal service offered by Norfolk Southern.

Identify any possible Environmental or other issues/concerns within the scope of this project.

Overall environmental effects are expected to be beneficial as rail freight is considerably more fuel efficient and less polluting than truck freight.

A small portion of the new track construction will be adjacent to an existing VOF easement.

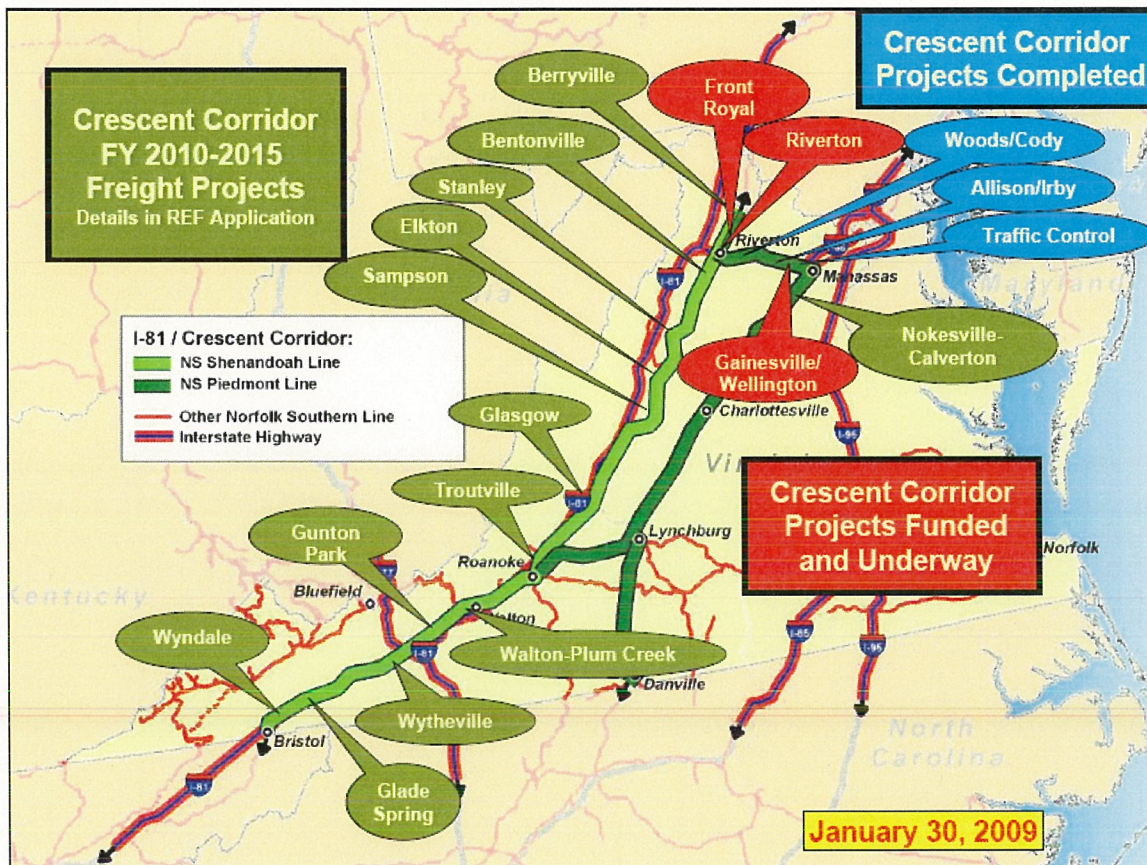
Added Capacity to Rail Corridor (Additional Railcars or Passengers)

When viewed in isolation, the expanded passing track at Gunton Park will reduce 4 hours aggregate train delay. When combined with the other passing track extension and double track projects proposed between Hagerstown and Bristol described elsewhere in this Application, the aggregate train delay is reduced by approximately 45 hours per day. Reducing this delay will allow faster turn times for assets such as locomotives, crews and

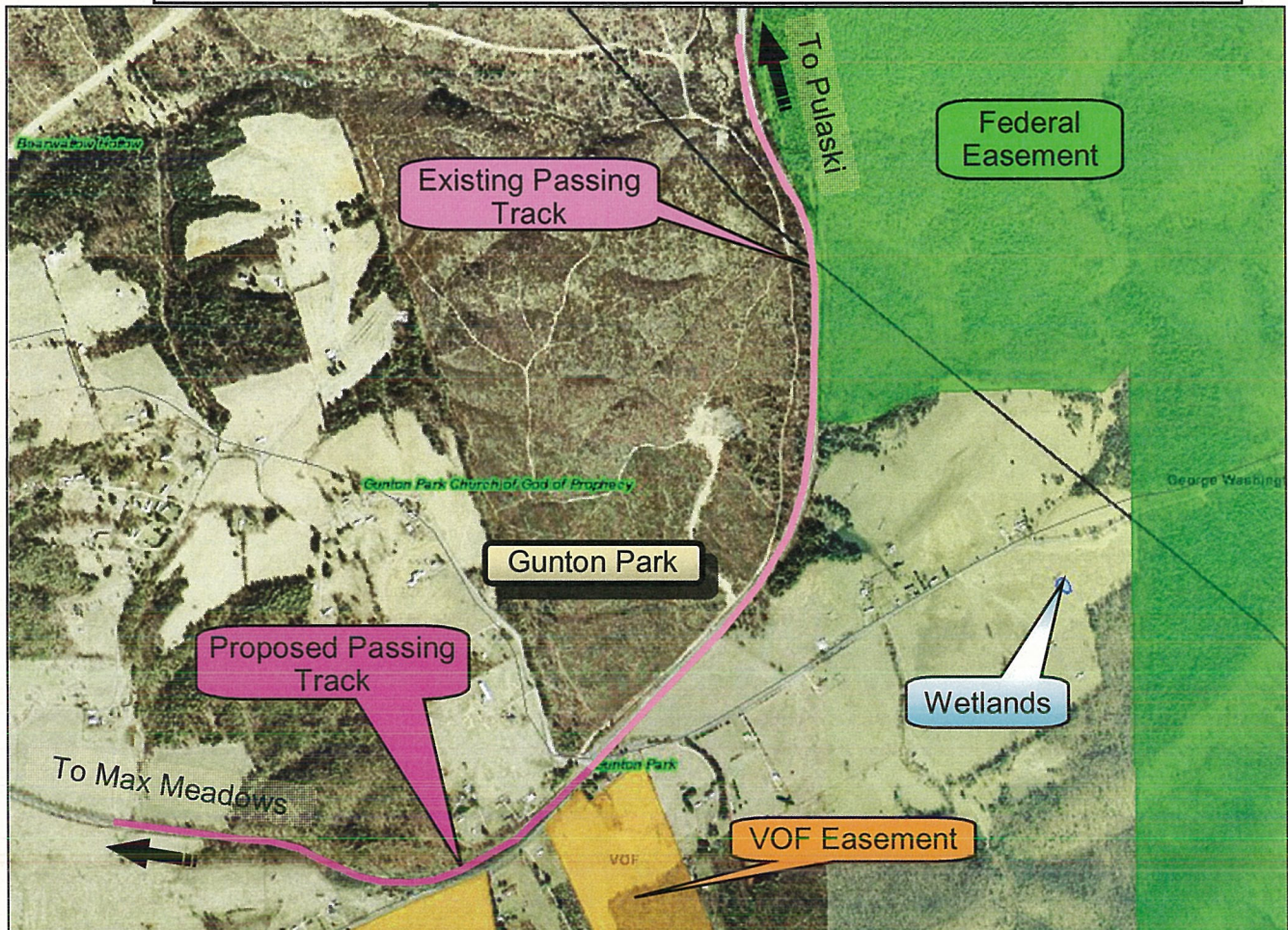
Appendix 3 – Details of FY2010 Projects
Norfolk Southern Rail Enhancement Fund Application
January 30, 2009

freight cars. When combined with other planned or proposed projects, the synergies will enable additional train starts and increased throughput on this north-south corridor.

Project Map



**NS Priority 11 – Gunton Park, VA
MP NB322.1 – NB324.2, Wythe & Pulaski Counties**



Priority 12 – Troutville Passing Track Extension

Project Location: Troutville (town) and Botetourt County, VA, on Norfolk Southern's Riverton-Roanoke main line. Project limits: mp H225.9-H228.1

Owner of Property/Right of Way: Norfolk Southern Railway Company

Responsible Party for Continuous Maintenance of Project: Norfolk Southern Railway Company

Project Information:

Description of Project:

Troutville is located between Riverton and Roanoke, VA on Norfolk Southern's main artery between the Northeast and Tennessee. This line is a secondary main line today but will become a major component of the Crescent Corridor for premium intermodal traffic between the Northeast and two major Tennessee markets. This route is cleared for double stack container traffic and parallels Interstate 81.

The Riverton-Roanoke line is a single track main line, governed by signaled traffic control, with short (less than 8000') passing tracks about every ten miles. Trains pass or overtake each other at passing tracks. This project would upgrade the existing 5,942-foot passing track at Troutville to accommodate longer trains at higher speeds.

Longer passing tracks are badly needed between Shenandoah and Roanoke, about 130 miles. In that distance, there is only one place where long trains can meet or pass: between Vesuvius and Pkin, about three miles of double track on the ruling northbound grade, about 65 miles north of Roanoke and 60 miles south of Shenandoah, and which is encumbered with eight grade crossings throughout its length.

At present, trains using the passing track at Troutville are limited to 10 mph. Further, the passing track is only 5,942 feet long. Most of the 14-18 trains/day operating between Roanoke and Shenandoah are too long to fit into the passing track. NS proposes to replace 10% of the crossties in, and to surface, the existing passing track; to replace existing #12 turnouts with #20 turnouts; and to construct 5,100 feet of new track to enlarge the passing track to a total length of 11,000 feet. After completion, any train operating between Roanoke and Riverton will be able to meet or pass any other train at Troutville, and trains using the passing track will be able to operate over it at 25 mph or more.

Appendix 3 – Details of FY2010 Projects
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Project Objective:

The overall objective of the project is to increase capacity and to speed up train operations on the Riverton-Roanoke main line. This artery today handles merchandise, coal and grain, and will be an important component of the Crescent Corridor for premium intermodal traffic between the Northeast and the major truck markets in Tennessee.

The specific objective is to upgrade and extend the passing track at Troutville. NS trains incur an aggregate delay of 4 hours daily because of the inability to utilize fully the passing track at Troutville. Once the passing track is improved, aggregate delay will be 4 hours less than it is today.

Relationship to other projects under development by applicant or previously funded by this program:

This project complements FY2008 projects on the H-line at Front Royal. NS is completing the upgrading of the Marsh Run-Ashby passing track to main line standards and the construction of about 3.5 miles of new second main line to create a five mile segment of double track between mp H51.9 – H56.9 in the vicinity of the Virginia Inland Port (see NS's application of 6/13/07 for more detail). By constructing a new passing track near Glasgow in FY2010 (along with the other passing tracks between Roanoke and Riverton described elsewhere in this Application as well as the five miles of double track north of Front Royal), NS will create ten locations between Roanoke and Hagerstown (240 miles) where two contemporary intermodal trains – Crescent Corridor or otherwise – will be able to meet or pass.

Describe the Public Benefit of Project:

Overall public benefits:

- This project, with the other siding extension projects mentioned above, will make possible Crescent Corridor premium intermodal service. At present, very few locations exist where two 8000' trains can pass each other between Hagerstown and Roanoke. The standard length of a Crescent Corridor intermodal train will be 8000'.
- By reducing aggregate delay, and by making freight rail more attractive to potential rail users, this project will help to improve air quality, conserve fuel (because of rail's efficiency advantage) and reduce truck traffic
- By increasing capacity, the project enables the rail mode to absorb more growth

Type of Project:

Project is rehabilitation (existing passing track) and new construction (passing track extension) of rail infrastructure. Includes modification to signal and communication equipment (signal upgrading and relocation, and relocation of fiber optic cable).

Application Scope of Work Covers: Entire project

Appendix 3 – Details of FY2010 Projects
Norfolk Southern Rail Enhancement Fund Application
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Project Budget Summary (2008 dollars):

Preliminary Service, Engineering, or Feasibility Study	\$ 204,930
Environmental Evaluation	\$ 222,750
Design Engineering	\$ 427,680
Right-of-way Acquisition	\$
Construction	\$6,753,780
Construction Management	\$ 623,700
Lease/Acquisition of Equipment	\$
Other (Relocate fiber optic cable)	\$ 677,160
	=====
Total Project Budget	\$8,910,000

Rail Enhancement Funds Requested in this Application: \$ 6,237,000(70%) _____

This request is for capital costs only. NS will assume all ongoing maintenance and operating cost responsibilities and future capital costs.

No provision has been made for crossing closure or grade separation. If Norfolk Southern can successfully negotiate crossing closures as part of the project, the overall project cost may increase but such increase would be funded by Norfolk Southern, thereby increasing NS match to greater than 30%.

Note that these estimates are in 2008 dollars. Revised estimates may be necessary when project begins.

Local Match Required by Applicant: \$ 2,673,000 (30%) _____

If Overmatch, Provide Percentage: 0%

1) Match Breakdown by Source (include in-kind)

a. Provider of Local Match Norfolk Southern Railway _____

b. Status (confirmed/anticipated) Confirmed _____

2) Other Funding Sources Beyond Match Requirement

a. Provider of Over Match n/a _____

b. Status (confirmed/anticipated) n/a _____

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M. Project implementation schedule (based in months). List major milestones of the project.

Survey and Develop Plans:	3 Months
Acquire Right of Way:	3 Months
Bidding:	2 Months
Permitting:	2 Months
Relocation of Fiber Optic Line	1 Month
Grading:	4 Months
Track work:	3 Months
Total:	18 Months

Statement on how this Project promotes or does not preclude Dual/Multi-Access Use:

This project is on Norfolk Southern owned right-of-way on which only Norfolk Southern operates; the rail line will remain an exclusive Norfolk Southern route. There is no proposal to change current operations and allow dual access by another railroad on this track. (The competing north-south route of CSX Transportation, Inc. extends between Alexandria, VA and Rocky Mount, NC [via Richmond, VA].)

Also, Project anticipates intermodal freight growth and will enable service enhancements that will attract domestic truck traffic from many trucking companies. In this sense, Project promotes multi-access (i.e., by trucking companies) use.

List additional users of rail line, facility, and/or equipment: trucking companies using intermodal service offered by Norfolk Southern.

Identify any possible Environmental or other issues/concerns within the scope of this project.

Overall environmental effects are expected to be beneficial as rail freight is considerably more fuel efficient and less polluting than truck freight.

There are no known environmental issues or concerns at this time.

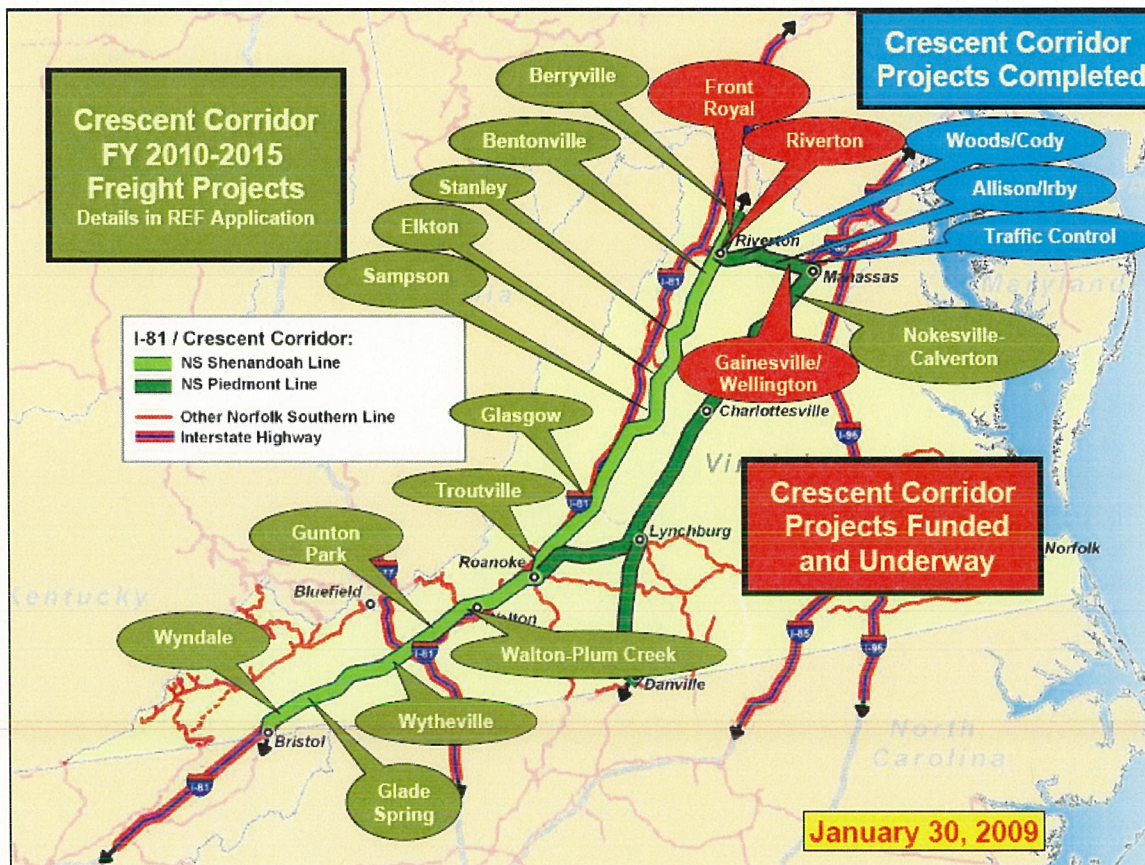
Added Capacity to Rail Corridor (Additional Railcars or Passengers)

When viewed in isolation, the expanded passing track at Troutville will reduce 4 hours aggregate train delay. When combined with the other seven passing track projects between Hagerstown and Roanoke described elsewhere in this Application, as well as the five miles of double track north of Front Royal, the aggregate train delay is reduced by approximately 30 hours per day. Reducing this delay will allow faster turn times for assets such as locomotives, crews and freight cars. When combined with other planned

Appendix 3 – Details of FY2010 Projects
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or proposed projects, the synergies will enable additional train starts and increased throughput on this north-south corridor.

Project Map



NS Priority 12 – Troutville, VA
MP H225.9 – H228.1, Botetourt County & Town

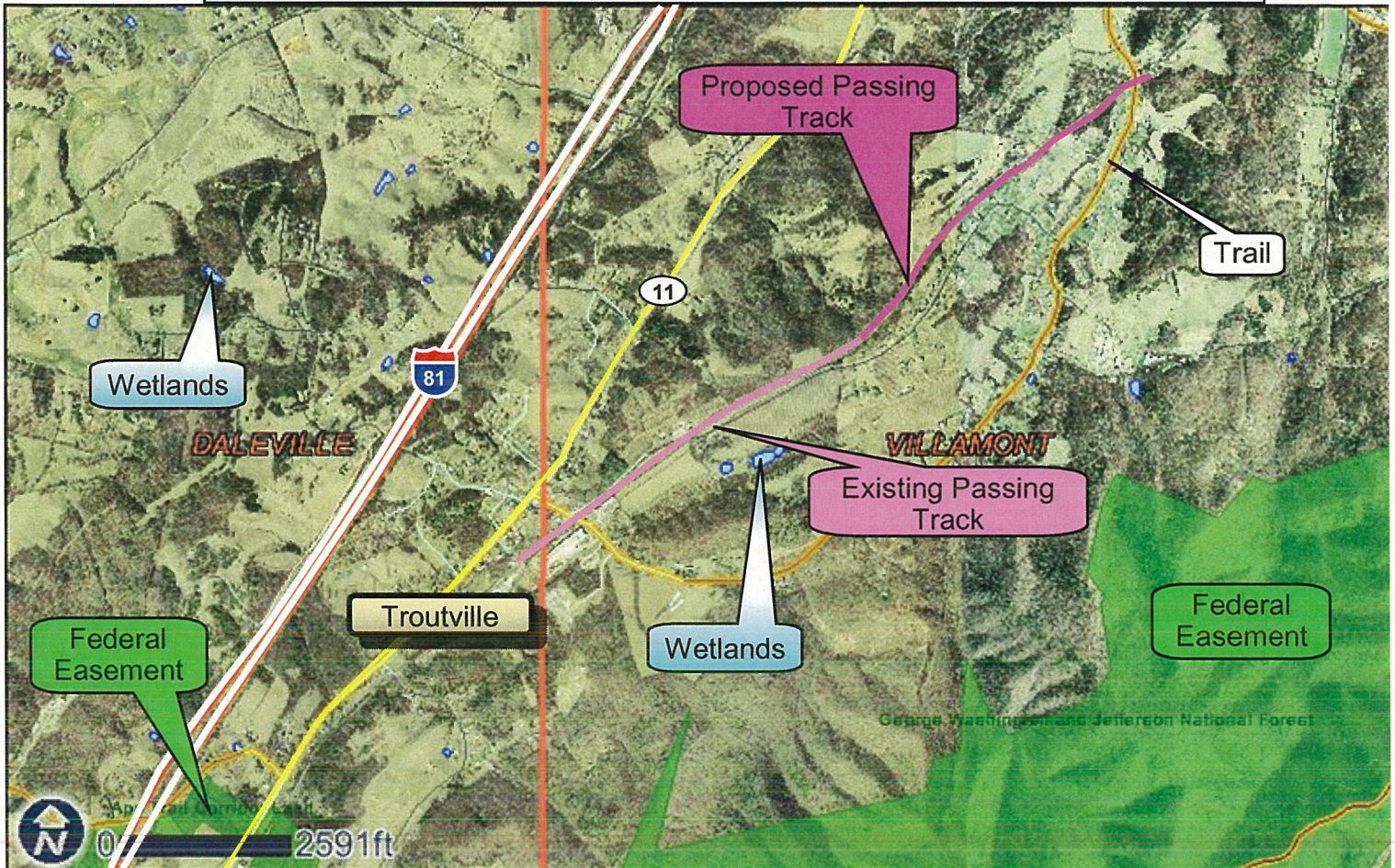


Diagram of Proposed Passing Track Extension – Troutville, VA
(Red line indicates location of new track construction)



Priority 13 – Wytheville Passing Track Extension

Project Location: Wytheville, Wythe County and Wytheville corporate limits, VA, on Norfolk Southern's Walton-Bristol main line. Project limits: mp NB336.2 – NB339.6

Owner of Property/Right of Way: Norfolk Southern Railway Company

Responsible Party for Continuous Maintenance of Project: Norfolk Southern Railway Company

Project Information:

Description of Project:

Wytheville is located between Walton and Bristol, VA on Norfolk Southern's main artery between the Northeast and Tennessee. This line is a secondary main line today but will become a major component of the Crescent Corridor for premium intermodal traffic between the Northeast and two major Tennessee markets. This route is cleared for double stack container traffic and parallels Interstate 81.

The Walton-Bristol line, 107 miles, is a single track main line, governed by signaled traffic control, with short (less than 8000') passing tracks about every fifteen miles. Trains pass or overtake each other at passing tracks. This project would upgrade the existing 5,518-foot passing track at Wytheville to accommodate longer trains at higher speeds.

Longer passing tracks are needed between Walton and Bristol. In that distance, there is only one passing track more than 8,000 feet in length – at Duncan, approximately midway between Walton and Bristol. Extending the Wytheville passing track, along with the other passing track projects in this application, will provide additional meeting points between Walton and Bristol that will be essential before Crescent Corridor intermodal service can begin.

At present, trains using the passing track at Wytheville are limited to 10 mph. Further, the passing track is only 5,518 feet long. Most of the 10 trains/day operating between Walton and Bristol are too long to fit into the passing track. NS proposes to replace 10% of the crossties in, and to surface, the existing passing track; to replace existing #12 turnouts with #20 turnouts; and to construct 12,500 feet of new track to enlarge the passing track to a total length of 18,000 feet. After completion, any train operating between Walton and Bristol will be able to meet or pass any other train at Wytheville, and trains using the passing track will be able to operate over it at 25 mph or more.

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Project Objective:

The overall objective of the project is to increase capacity and to speed up train operations on the Walton-Bristol main line. This artery today handles merchandise, coal and intermodal, and will be an important component of the Crescent Corridor for premium intermodal traffic between the Northeast and the major truck markets in Tennessee.

The specific objective is to upgrade and extend the passing track at Wytheville. NS trains incur an aggregate delay of 4 hours daily because of the inability to utilize fully the passing track at Wytheville. Once the passing track is improved, aggregate delay will be 4 hours less than it is today.

Relationship to other projects under development by applicant or previously funded by this program:

This project complements the FY2008 double track project on the H-line at Front Royal as well as the passing track improvement projects proposed between Roanoke and Hagerstown on the H-line. Together with the Walton, Wyndale, Gunton Park and Glade Spring passing track projects (described elsewhere in this application), NS will create a total of seventeen locations between Bristol and Hagerstown (390 miles) where two contemporary intermodal trains – Crescent Corridor or otherwise – will be able to meet or pass.

Describe the Public Benefit of Project:

Overall public benefits:

- Along with the other passing track extension projects mentioned above, this project will make possible Crescent Corridor premium intermodal service. At present, very few locations exist where two 8000' trains can pass each other between Hagerstown and Bristol. The standard length of a Crescent Corridor intermodal train will be 8000'.
- By reducing aggregate delay, and by making freight rail more attractive to potential rail users, this project will help to improve air quality, conserve fuel (because of rail's efficiency advantage) and reduce truck traffic
- By increasing capacity, the project enables the rail mode to absorb more growth

Type of Project:

Project is rehabilitation (existing passing track) and new construction (passing track extension) of rail infrastructure. Includes modification to signal and communication equipment (signal upgrading and relocation, and relocation of fiber optic cable).

Application Scope of Work Covers: Entire project

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Project Budget Summary (2008 dollars):

Preliminary Service, Engineering, or Feasibility Study	\$ 239,890
Environmental Evaluation	\$ 260,750
Design Engineering	\$ 500,640
Right-of-way Acquisition	\$
Construction	\$7,905,940
Construction Management	\$ 730,100
Lease/Acquisition of Equipment	\$
Other (Relocate fiber optic cable)	\$ 792,680
	=====
Total Project Budget	\$10,430,000

Rail Enhancement Funds Requested in this Application: \$ 7,301,000 (70%)

This request is for capital costs only. NS will assume all ongoing maintenance and operating cost responsibilities and future capital costs.

No provision has been made for crossing closure or grade separation. If Norfolk Southern can successfully negotiate crossing closures as part of the project, the overall project cost may increase but such increase would be funded by Norfolk Southern, thereby increasing NS match to greater than 30%.

Note that these estimates are in 2008 dollars. Revised estimates may be necessary when project begins.

Local Match Required by Applicant: \$ 3,129,000 (30%)

If Overmatch, Provide Percentage: 0%

1) Match Breakdown by Source (include in-kind)

a. Provider of Local Match ~~Norfolk Southern Railway~~

b. Status (confirmed/anticipated) ~~Confirmed~~

2) Other Funding Sources Beyond Match Requirement

a. Provider of Over Match ~~n/a~~

b. Status (confirmed/anticipated) ~~n/a~~

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M. Project implementation schedule (based in months). List major milestones of the project.

Survey and Develop Plans:	3 Months
Acquire Right of Way:	3 Months
Bidding:	2 Months
Permitting:	2 Months
Relocation of Fiber Optic Line	1 Month
Grading:	4 Months
Track work:	3 Months
Total:	18 Months

Statement on how this Project promotes or does not preclude Dual/Multi-Access Use:

This project is on Norfolk Southern owned right-of-way on which only Norfolk Southern operates; the rail line will remain an exclusive Norfolk Southern route. There is no proposal to change current operations and allow dual access by another railroad on this track. (The competing north-south route of CSX Transportation, Inc. extends between Alexandria, VA and Rocky Mount, NC [via Richmond, VA].)

Also, Project anticipates intermodal freight growth and will enable service enhancements that will attract domestic truck traffic from many trucking companies. In this sense, Project promotes multi-access (i.e., by trucking companies) use.

List additional users of rail line, facility, and/or equipment: trucking companies using intermodal service offered by Norfolk Southern.

Identify any possible Environmental or other issues/concerns within the scope of this project.

Overall environmental effects are expected to be beneficial as rail freight is considerably more fuel efficient and less polluting than truck freight.

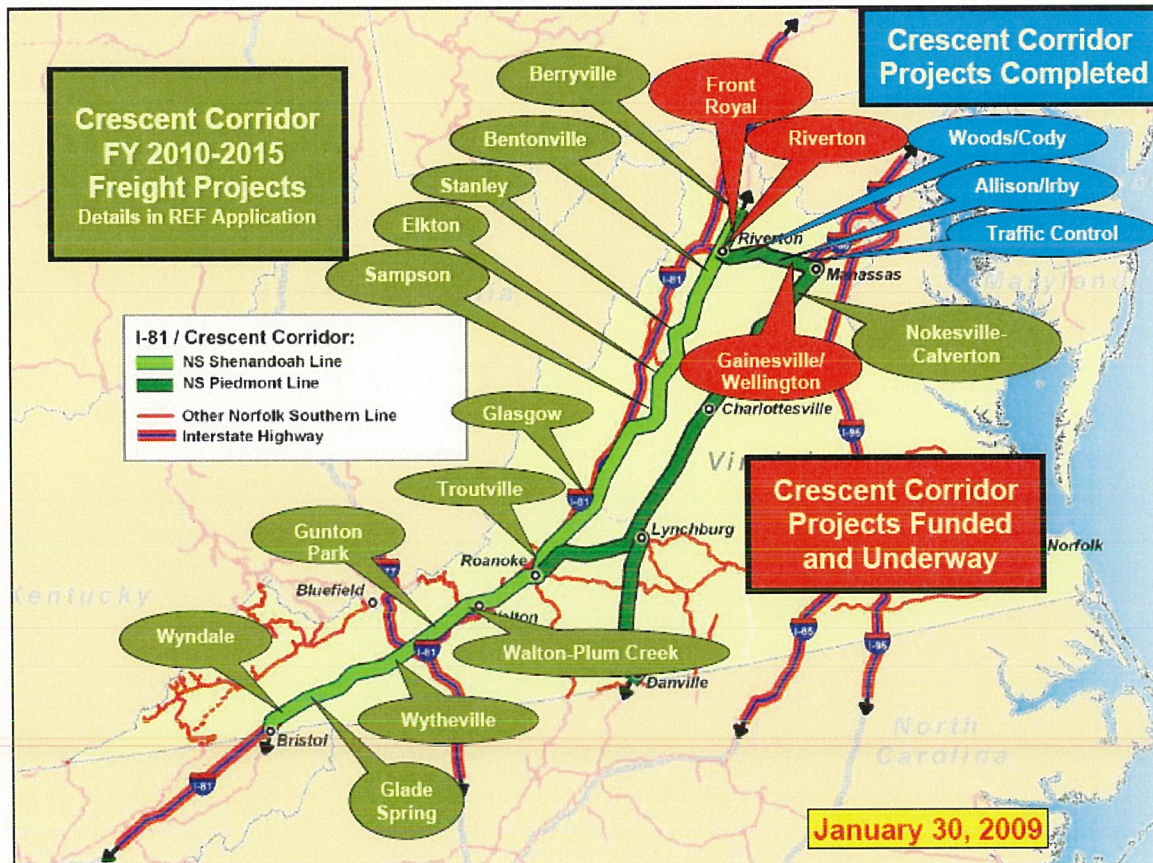
There are no known environmental issues or concerns at this time.

Added Capacity to Rail Corridor (Additional Railcars or Passengers)

When viewed in isolation, the expanded passing track at Wytheville will reduce 4 hours aggregate train delay. When combined with the other passing track extension and double track projects proposed between Hagerstown and Bristol described elsewhere in this Application, the aggregate train delay is reduced by approximately 45 hours per day. Reducing this delay will allow faster turn times for assets such as locomotives, crews and freight cars. When combined with other planned or proposed projects, the synergies will enable additional train starts and increased throughput on this north-south corridor.

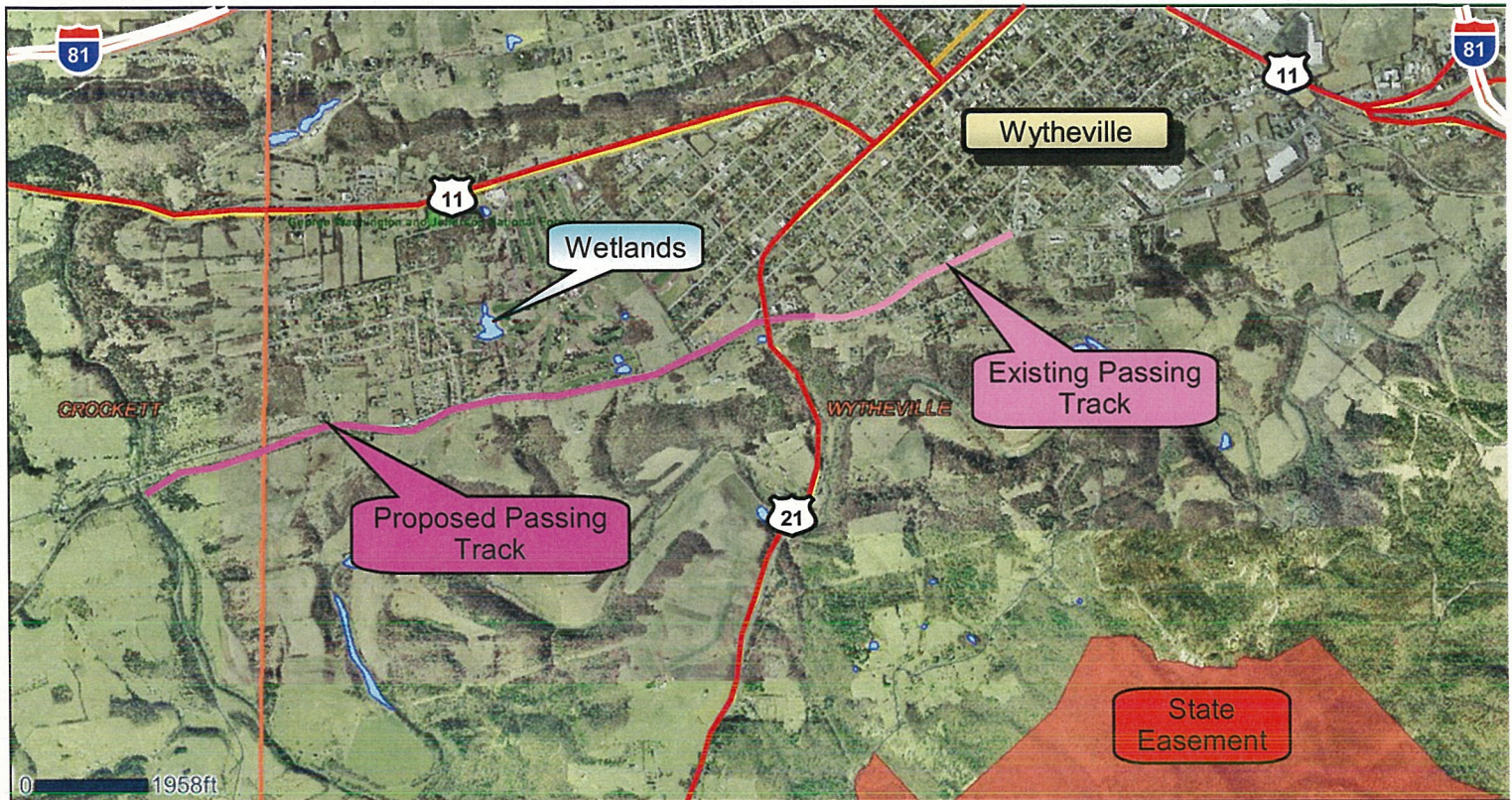
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Project Map



NS Priority 13 - Wytheville

MP NB336.2 – MP NB339.6 Wythe County



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Diagram of Proposed Passing Track Extension – Wytheville, VA
 (Red line indicates location of new track construction)

